LOUISIANA SCHOOL EMPLOYEES' RETIREMENT SYSTEM

ACTUARIAL VALUATION AS OF
JUNE 30, 2015

G. S. CURRAN & COMPANY, LTD.

Actuarial Services

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September 22, 2015

Board of Trustees
Louisiana School Employees' Retirement System
8401 United Plaza Boulevard.
Baton Rouge, Louisiana 70809

Ladies and Gentlemen:

We are pleased to present our report on the actuarial valuation of the Louisiana School Employees' Retirement System for the fiscal year ending June 30, 2015. Our report is based on the actuarial assumptions specified and relies on the data supplied by the system's administrators and accountants. This report was prepared at the request of the Board of Trustees of Louisiana School Employees' Retirement System of the State of Louisiana. The primary purposes of the report are to determine the actuarially required contribution for the retirement system for the fiscal year ending June 30, 2016, and to recommend the net direct employer contribution rate for fiscal 2017. This report does not contain the information necessary for accounting disclosures as required by Governmental Accounting Standards Board (GASB) Statements 67 and 68; that information is included in a separate report. This report was prepared exclusively for Louisiana School Employees' Retirement System for a specific limited purpose. It is not for the use or benefit of any third party for any purpose.

In our opinion, all of the assumptions on which this valuation is based are reasonable individually and in the aggregate. Both economic and demographic assumptions are based on our expectations for future experience for the fund. This report has been prepared in accordance with generally accepted actuarial principles and practices, and to the best of our knowledge and belief, fairly reflects the actuarial present values and costs stated herein. The undersigned actuaries are members of the American Academy of Actuaries and have met the qualification standards for the American Academy of Actuaries to render the actuarial opinions incorporated in this report, and are available to provide further information or answers to any questions with respect to this valuation.

Sincerely,

G. S. CURRAN & COMPANY, LTD.

By: Gary Curran, F.C.A., M.A.A.A., A.S.A.

Gregory Curran, F.C.A., M.A.A.A., A.S.A.

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SUMMARY OF VALUATION RESULTS
LOUISIANA SCHOOL EMPLOYEES' RETIREMENT SYSTEM

Valuation Date:		June 30, 2015	June 30, 2014
Census Summary:	Active Members	12,061	12,054
	Retired Members and Survivors	13,024	12,711
	DROP Participants	660	537
	Terminated Due a Deferred Benefit	276	413
	Terminated Due a Refund	3,940	3,793 †

Payroll (excluding DROP accruals):	$ 276,949,800	$ 274,347,650
Benefits in Payment:	$ 154,831,624	$ 146,084,220 *
Employee Experience Account:	$ 23,058,055	$ 20,787,326
Amortization Conversion Account:	$ 19,079,106	$ 19,640,033
Unfunded Actuarial Accrued Liability:	$ 728,150,981	$ 806,632,711
Market Value of Assets (Includes side funds)	$ 1,851,456,181	$ 1,857,367,056
Actuarial Asset Value (AVA) (Net of side funds):	$ 1,757,432,206	$ 1,631,618,702
Actuarial Accrued Liability (Entry Age Normal):	$ 2,485,583,187	$ 2,438,251,413
Ratio of AVA to Actuarial Accrued Liabilities:	70.71%	66.92%
Market Rate of Return (Excluding Money Market DROP funds)	3.00%	16.96%
Actuarial Rate of Return (Excluding Money Market DROP funds)	11.63%	13.63%
Non-Money Market DROP Account Interest Credit Rate	11.13%	13.13%

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	FISCAL 2016	FISCAL 2015
Employers' Normal Cost (Mid-year)	$ 27,815,696	$ 25,360,827
Amortization Cost (Mid-year):	$ 57,714,437	$ 64,063,783
Amortization Conversion Account Supplement	$ (3,359,318)	$ (560,927)
Net Direct Employer Actuarially Required Contributions	$ 82,170,815	$ 88,863,683
Actuarially Required Net Direct Employer Contribution Rate	28.7%	32.0%
Actual Net Direct Employer Contribution Rate:	30.2%	33.0%

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Minimum Recommended Net Direct Employer Cont. Rate **:** **Fiscal 2017: 27.3%** **Fiscal 2016: 30.2%**

Employee Contribution Rate: Employees whose first state service occurred before July 1, 2010: 7.50%
Employees whose first state service occurred on or after July 1, 2010: 8.00%

Actuarial Cost Method: Individual Entry Age Normal with allocation of cost based on earnings.

Valuation Interest Rate: 7.00% (Net of Investment and Administrative Expenses)

Basis of Actuarial Asset Value: The actuarial value of assets is based on the market value of assets adjusted to phase in asset earnings above or below the assumed rate of return over a five-year period with limits set at 85% and 115% of the market value of assets. When the adjusted value falls outside of the limits, the actuarial value is set equal to the average of the limited and adjusted value.

Changes in Valuation Methods, Assumptions, and/or Amortization Periods: The valuation interest rate was lowered from 7.25% (Net of Investment Expense) to 7.00% (Net of Investment and Administrative Expenses) in order to reflect the effect of Administrative Expenses totaling approximately 0.25% of assets through the valuation interest rate. In addition, the valuation model was revised. The actuarial value of assets was adjusted to limit the effect of the corridor.

Method of Recognizing Gains and Losses: Gains and losses are amortized over 30 years with level payments, with the exception of contribution surpluses or shortfalls which are amortized over 5 years. The 30 year period will reduce to 20 years in the valuation following the year when the system's funded ratio reaches 85%.

* Benefits in Payment as of June 30, 2014 do not reflect permanent benefit increase effective July 1, 2014
† Estimated value

COMMENTS ON DATA

For the valuation, the system's administration furnished a census derived from the system's master data processing file indicating each active covered employee's sex, date of birth, service credit, annual salary, and accumulated contributions. Information on retirees detailing dates of birth of retirees and beneficiaries, sex, as well as option categories and benefit amounts, was provided in like manner. In addition, data was supplied on former employees who are vested or who have contributions remaining on deposit. As illustrated in Exhibit VIII, there are 12,061 active contributing members in the system of whom 4,820 have vested retirement benefits; in addition, there are 660 participants in the Deferred Retirement Option Plan (DROP); 13,024 former members or their beneficiaries are receiving retirement benefits. An additional 4,216 terminated members have contributions remaining on deposit with the system; of this number 276 have vested rights for future retirement benefits**.**

Census data submitted to our office is tested for errors. Several types of census data errors are possible; to ensure that the valuation results are as accurate as possible, a significant effort is made to identify and correct these errors. In order to minimize coverage errors (i.e., missing or duplicated individual records) the records are checked for duplicates, and a comparison of the current year's records to those submitted in prior years is made. Changes in status, new records, and previous records that have no corresponding current record are identified. This portion of the review indicates the annual flow of members from one status to another and is used to check some of the actuarial assumptions such as retirement rates, rates of withdrawal, and mortality. In addition, the census is checked for reasonableness in several areas such as age, service, salary, and current benefits. The records identified by this review as questionable are checked against data from prior valuations; those not recently verified are included in a detailed list of items sent to the system's administrative staff for verification and/or correction. Once the identified data has been researched and verified or corrected, it is returned to us for use in the valuation. Occasionally some requested information is either unavailable or impractical to obtain. In such cases, values may be assigned to missing data. The assigned values are based on information from similar records or based on information implied from other data in the record.

Errors in the prior year data file limited our ability to validate current records. Notwithstanding this, we believe that the valuation data was reviewed in sufficient detail with the system's staff to allow us to make the necessary improvements to calculate results that reasonably represent the liabilities of the system. This detailed data review found a significant number of incomplete records due to the typical processing time for members entering DROP or retiring. These records were updated to reflect the member's status as of the valuation date. An effort was made to review a large number of records that were included in the prior valuation data file and not included in the current year data file. The base data used to calculate the estimated benefit on terminated, vested records was reviewed since estimates on many of these records differed with the value used by the prior actuary. Records for retirees who chose to receive benefits in the form of a "popup" annuity, which provides for the retiree's benefit to increase to the maximum on the death of their option beneficiary, do not include the original maximum benefit. Therefore, an estimate was made based on an estimate of the option factor at the time of retirement and the original benefit paid to the retiree. A significant number of records with missing information were corrected based on answers to our data review questions by the system's staff.

In addition to the statistical information provided on the system's participants, the system's administrator furnished general information related to other aspects of the system's expenses, benefits and funding. Valuation asset values as well as income and expenses for the fiscal year were based on information furnished by the system's auditor, the firm of Duplantier, Hrapmann, Hogan & Maher, Certified Public Accountants. As indicated in the system's financial statements, the net market value of system's assets was $1,851,456,181 as of June 30, 2015. Net investment income for fiscal 2015 measured on a market value basis amounted to a gain of $54,091,029. Contributions to the system for the fiscal year totaled $117,134,201; benefits and expenses amounted to $177,136,105.

Notwithstanding our efforts to review both census and financial data for apparent errors, we must rely upon the system's administrative staff and accountants to provide accurate information. Our review of submitted information is limited to validation of reasonableness and consistency. Verification of submitted data to source information is beyond the scope of our efforts.

COMMENTS ON ACTUARIAL METHODS AND ASSUMPTIONS

This valuation is based on the Individual Entry Age Normal actuarial cost method. The unfunded accrued liability is amortized with level payments over various periods as specified in Louisiana Revised Statute R.S. 11:102. Effective with the June 30, 2014 valuation, the system's outstanding amortization bases were consolidated and re-amortized over thirty years with level payments. Subsequent amortization bases for actuarial asset and liability gains or losses (except as noted below) or changes in assumptions will be amortized over 30 years until such time as the plan reaches a funded ratio of at least 85% when such amortization period shall be twenty years for any new such base. Contribution shortfalls and excesses are amortized as a level dollar amount over 5 years. In each valuation, the first $15,000,000 of any asset gain (adjusted pro-rata for increases in the Actuarial Value of Assets) is used to immediately reduce the system's oldest outstanding amortization base without re-amortization. After the system's funded percentage reaches 85%, the remaining balance of the amortization base after application of the first level of asset gains by $15,000,000 will be re-amortized over the remaining amortization period. Fifty percent of the asset gains which exceed the $15,000,000 threshold can be used to fund the system's Employee Experience Account (otherwise referred to as the Experience Account) which may be allocated to future permanent benefit increases (commonly referred to cost of living adjustments), subject to certain limitations. Effective with the June 30, 2019 valuation, any such allocation will be amortized as a loss with level payments over ten years. The funding methodology for the plan also includes the application of LSERS "side funds" defined by R.S. 11:102. The funds include the "Amortization Conversion Account" of the system's "Employee Experience Account." For funding purposes, the actuarial value of assets excludes both the Amortization Conversion Account and the Experience Account.

The Amortization Conversion Account was initially funded from the residual balance in the experience account of June 30, 2013. Payments from the account are made as an offset to employer contributions based on the provisions of Act 478 of the 2014 Regular Legislative Session each year through fiscal 2019. Any balances in the account as of 2019 will be amortized as an experience gain.

The system's Experience Account is funded by 50% of any investment gains above $15,000,000 subject to the limits on the account value. In addition, each year the balance in the account is credited with investment earnings. The balance in the account cannot exceed the reserve necessary to grant one (two if the system is funded 80% or greater) cost-of-living adjustment (or permanent benefit increase) as otherwise authorized by law. Any funds credited to the Experience Account reduce those allocated to the Investment Gain/Loss Experience base.

The general economic and non-economic assumptions used by the prior actuary for the June 30, 2014 valuation were reviewed and a determination was made to retain them with the exception of the statistics related to family composition and rates of remarriage. The change was made in these categories to better accommodate the software model used in this valuation. We do not believe that these changes will have any material effect. In addition, the software model used for this valuation is fundamentally different in several respects from the one used in the prior valuation. Among the differences is the use of beginning of year decrements and treatment of DROP as a decrement as opposed to a special form of retirement decrement. The valuation interest rate was determined by reviewing recent and long-term historical economic data as well as forward looking estimates provided by the fund's investment consultant, Segal Rogerscasey, and other consulting groups. Consideration was also given to expected investment and administrative costs. Inherent in the determination of future expected nominal returns was an assumption of future long-term inflation of 2.75%. The valuation interest rate was reduced from 7.25% to 7.00% as of June 30, 2015. The reduction was made to account for the funding of administrative expenses out of investment earnings. Prior to this valuation, no explicit provision was made to fund or offset administrative expenses. As a result, such expenses generated a liability experience loss as they accrued. The reduction in the valuation interest rate by 0.25% is projected to provide sufficient margin to offset administrative costs. Future valuations will offset investment income by the sums of both investment and general administrative costs in determining net investment income.

Decrement levels and salary scale were based on those values used by the prior actuary. Since no experience was available to set these assumptions, they were reviewed for reasonableness. In addition, a review was made of the prior actuary's experience report, dated April 5, 2013. This report detailed the experience for the plan over the prior five year period. In particular, a review of the mortality as given in the experience report indicated that even though the RP2000 table without projection was utilized, it included significant margins for mortality improvement; hence no projection was made to the table.

In addition, we have estimated that the correction in system data errors and the change in the valuation model used to determine the accrued liability reduced the system's unfunded accrued liability by $42,073,134, which produced an interest adjusted amortization credit of $ 3,277,742, or 1.15% of projected payroll. We have estimated that the reduction in the system's valuation interest rate from 7.25% to 7.00% resulted in an increase in the unfunded accrued liability of $53,611,597. The interest adjusted amortization payment on the increase amounts to $ 4,176,655, or 1.46% of projected payroll.

CHANGES IN PLAN PROVISIONS

There were no legislative changes directly affecting the retirement system enacted during the 2015 Regular Session of the Louisiana Legislature.

ASSET EXPERIENCE

The actuarial and market rates of return for the past ten years are given below. These investment rates of return were determined by assuming a uniform distribution of income and expense throughout the fiscal year.

	Market Value †	Actuarial Value †
2006	5.77%	9.19%
2007	14.90%	9.85%
2008	- 4.74%	5.87%
2009	-16.94%	-7.08%
2010	13.02%	0.55%

2011	23.28%	4.35%
2012	2.27%	9.07%
2013	13.73%	12.04%
2014	16.96%	13.63%
2015	3.00%	11.63%

† Rates of return calculated based on assets inclusive of Amortization Conversion Account and Experience Account but exclusive of money market DROP assets and income.

The market rate of return gives a measure of investment return on a total return basis and includes realized and unrealized capital gains and losses as well as interest income. The rate of return is calculated on assets invested in the system's portfolio. DROP and IBRP assets invested in money market investments have been excluded from the rate of return calculation. This rate of return gives an indication of performance for an actively managed portfolio where securities are bought and sold with the objective of producing the highest total rate of return. During 2015, the fund earned $26,686,373 of dividends, interest and other recurring income. In addition, the Fund had net realized and unrealized capital gains on investments of $33,177,431. This income was offset by investment expenses of $5,772,775. The geometric mean of the market value rate of return measured over the last ten years was 6.50%.

The actuarial rate of return is presented for comparison to the assumed long-term rate of return of 7.25% used for the valuation (7.0% beginning with July 1, 2015). DROP accounts that are credited with earnings based on the actual rate of return of the system should be credited with 11.13% (i.e. 11.63% less 0.5% as detailed in R.S. 11:1152(F)(3)). The actuarial rate of return is calculated based on the actuarial value of assets net of DROP and IBRP assets invested in money market accounts and includes all interest, dividends, and recognized capital gains as given in Exhibit VI net of money market income earned by DROP and IBRP assets. Investment income used to calculate this yield is based upon a smoothing of investment returns above or below the valuation interest rate over a five year period, subject to constraints. The difference between rates of return on an actuarial and market value basis results from the smoothing of gains or losses on investments relative to the valuation interest rate. Yields in excess of the 7.25% assumption will reduce future costs; yields below 7.25% will increase future costs. Beginning with Fiscal 2016, yields in excess of the 7.0% assumption will reduce cost while yields below 7.0% will increase costs. For fiscal 2015, the system experienced net actuarial investment earnings of $32,513,380 above the actuarial assumed earnings rate of 7.25% which produced an actuarial gain and decreased the interest-adjusted amortization payments on the system's UAL by $2,532,982 or 0.89% of projected payroll.

DEMOGRAPHICS AND LIABILITY EXPERIENCE

The average active contributing member is 52 years old with 10.00 years of service credit and an annual salary of $22,962. The system's active contributing membership experienced an increase of 7 members during fiscal 2015; over the last five years, the number of active contributing members decreased by 1,105. The number of DROP participants increased by 123 (This increase includes a number of individuals who had elected to enter DROP prior to June 30, 2014 but were pending as of the prior valuation).

The average service retiree is 72 years old with a monthly benefit of $1,044. The number of retirees and beneficiaries receiving benefits from the system increased by 313 during the fiscal year. Over the last five years, the number of retirees increased by 574 with annual benefits in payment increasing by $30,839,344.

Liability experience for the year was favorable. The total number of retirements was below projected levels. Salary increases were also below expected levels. Withdrawals and deaths were above projected levels. These factors tend to reduce costs. DROP entries and disabilities were above projected levels. This partially offset other gains. Net plan liability experience gains totaled $29,473,558. The interest adjusted amortization payment on this gain was $2,296,161, or 0.80% of projected payroll.

FUNDING ANALYSIS AND RECOMMENDATIONS

Actuarial funding of a retirement system is a process whereby funds are accumulated over the working lifetimes of employees in such a manner as to have sufficient assets available at retirement to pay for the lifetime benefits accrued by each member of the system. The required contributions are determined by an actuarial valuation based on rates of mortality, termination, disability, and retirement, as well as investment return and other statistical measures specific to the particular group. Each year a determination is made of two cost components, and the actuarially required contributions are based on the sum of these two components. These two components are the normal cost and the amortization payments on the unfunded actuarial accrued liability. The normal cost refers to the annual cost for active members allocated to each year by the particular cost method utilized. The term unfunded accrued liability (UAL) refers to the excess of the present value of plan benefits over the sum of current assets and future normal costs. Each year the UAL grows with interest and is reduced by payments. In addition it may be increased or diminished by plan experience, changes in assumptions, or changes in benefits including COLA’s. Contributions in excess of or less than the actuarially required amount can also decrease or increase the UAL balance. New entrants to the system can also increase or lower costs as a percent of payroll depending upon their demographic distribution. Finally, payroll growth affects plan costs since payments on the system’s unfunded accrued liability are on a fixed, level dollar schedule. If payroll increases, these costs are reduced as a percentage of payroll. Conversely, if payroll decreases, these costs are increased as a percentage of payroll.

In order to establish the actuarially required contribution in any given year, it is necessary to define the assumptions, funding method, and method of amortizing the UAL. Thus, the determination of what contribution is actuarially required depends upon the funding method and amortization schedules employed. Regardless of the method selected, the ultimate cost of providing benefits is dependent upon the benefits, expenses, and investment earnings. Only to the extent that some methods accumulate assets more rapidly and thus produce greater investment earnings does the funding method affect the ultimate cost.

An explanation of the change in costs related to asset and liability gains and losses as well as changes in demographics and assumptions is given in prior sections of the report. In addition to these components, variances in contribution levels and payroll also affect costs. For fiscal 2015 contributions totaled $3,883,540 more than required; the interest-adjusted amortization credit based on the contribution surplus for fiscal 2016 is $915,653, or 0.32% of projected payroll. In addition, for fiscal 2016 the net effect of the change in payroll on amortization costs was to decrease such costs by 0.72% of projected payroll.

A reconciliation of the change in costs is given below. Values listed in dollars are interest adjusted for payment throughout the fiscal year. Percentages are based on the projected payroll for fiscal 2016 except for those items labeled fiscal 2015.

	Dollars	Percentage of Payroll
Employer Normal Cost for Fiscal 2015	$ 25,360,827	9.14%
Cost of Demographic, Salary, Assumption and Model Changes	$ 2,454,869	0.58%
Employer Normal Cost for Fiscal 2016	$ 27,815,696	9.72%
UAL Payments for Fiscal 2015	$ 64,063,783	23.10%
Change due to reduction in valuation interest rate	$ (1,503,462)	(0.52%)
Change due to change in payroll	N/A	(0.72%)
Change due to elimination of Amortization	$ 0	0.00%
Additional Amortization Expenses for Fiscal 2016:		
Change in Data/Model	$ (3,277,742)	(1.15%)
Assumption Loss (Gain)	$ 4,176,655	1.47%
Asset Experience Loss (Gain)	$ (2,532,982)	(0.89%)
Liability Loss (Gain)	$ (2,296,161)	(0.80%)
Contribution Loss (Gain)	$ (915,654)	(0.32%)
Total Amortization Expense (Credit) for Fiscal 2016	$ 57,714,437	20.17%
Amortization Conversion Account Supplement for Fiscal 2016	$ (3,359,318)	(1.17%)
Total Normal Cost & Amortization Payments	$ 82,170,815	28.72%

The derivation of the actuarially required contribution for the current fiscal year is given in Exhibit I. The employer's normal cost for fiscal 2016, interest adjusted for mid-year payment is $49,378,818. The amortization payments on the system's unfunded actuarial accrued liability total $57,714,438. The total actuarially required contribution is determined by adding these two values. The net direct actuarially required employer contribution for fiscal 2016 is determined based on the sum of employer normal cost and amortization payments on the unfunded actuarial accrued liability less a payment from the system's Amortization Conversion Account set at $3,359,318 for Fiscal 2016. As given in line 13 of Exhibit I, the total actuarially required employer contribution for fiscal 2016 is $82,170,816, or 28.7% of projected payroll.

Since the actual employer contribution rate for fiscal 2016 is 30.2% of payroll, there will be a contribution surplus of 1.5% of payroll. This surplus will decrease the actuarially required contribution recommended for fiscal 2017. In order to determine a minimum recommended net direct employer contribution rate for Fiscal 2017, the Employer Normal Cost and Amortization Payments were estimated for Fiscal 2017, adjusted for the impact of the estimated contribution surplus for Fiscal 2016 and the scheduled payment from the Amortization Conversion Account. As given in line 21 of Exhibit I, the minimum recommended net direct employer contribution for fiscal 2017 is $80,795,148, or 27.3% of projected payroll.

Future actuarial measurements may differ significantly from the current measurements presented in this report due to such factors as the following: plan experience differing from that anticipated by the economic or demographic assumptions, changes in economic or demographic assumptions, completion of amortization payments or credit schedules, and changes in plan provisions or applicable law. Analysis of the effect of all these factors is beyond the scope of this report. We have, however, calculated the sensitivity of the plan's costs to a change in two factors. First, we have determined that based on current assets and demographics, for each percentage under (over) the assumed rate of return on the actuarial value of assets, there will be a corresponding increase (reduction) in the actuarially required contribution as a percentage of projected payroll of 0.48% for the fund. We have also determined that a 1% reduction in the valuation interest rate for the Fund would increase the actuarially required contribution rate for fiscal 2016 by 10.2% of payroll.

In addition to calculating the actuarially required contribution to the fund, we have also calculated the ratio of the system's funding assets to liabilities. When the actuarial value of assets is divided by the entry age normal accrued liability, the result is 70.71% as of June 30, 2015. This value in isolation does not give a measure of the ability of the fund to pay benefits in the future or indicate that future contributions are likely to be greater or less than current contributions. In addition, the ratio cannot be used to compare the relative strength of different retirement systems. However, the trend of this ratio over time can give some insight into the financial health of the plan. Even in this regard caution is warranted since market fluctuations in asset values and changes in plan assumptions can distort the underlying trends in this value.

COST OF LIVING ADJUSTMENTS

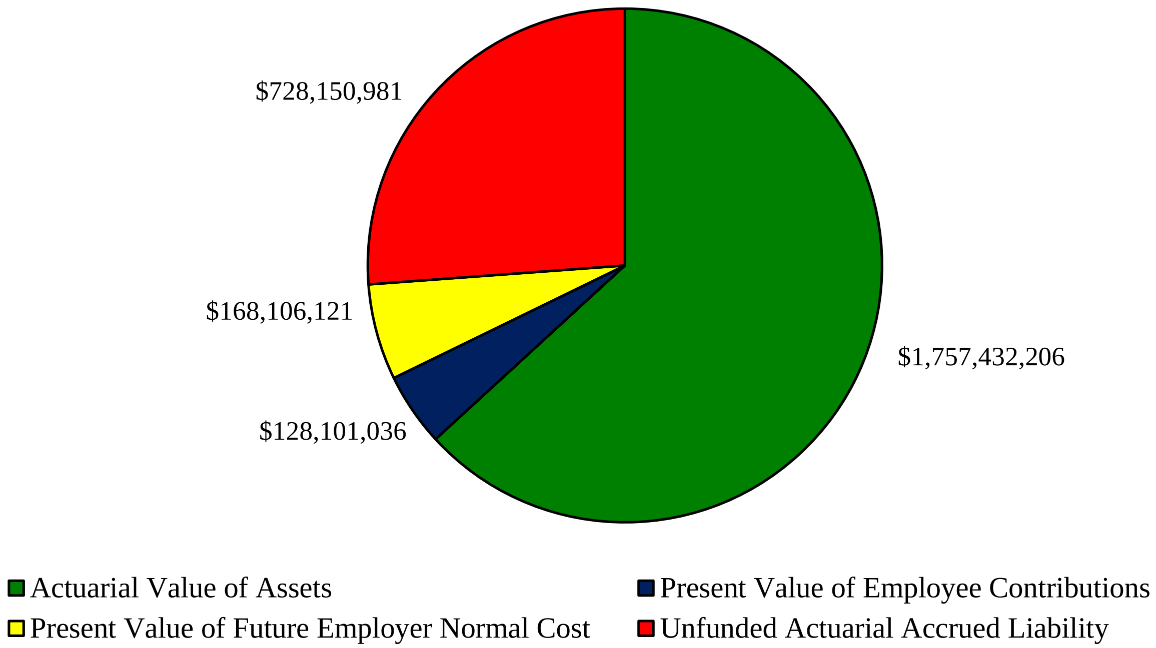
During fiscal 2015, the actual cost of living (as measured by the US Department of Labor CPI-U) increased by 0.12%. Cost of living provisions for the system are detailed in R.S. 11:1145.1 within the statutes relative to the Experience Account. The Experience Account cannot be credited with funds that would cause the balance in the account to exceed the reserve of one cost of living adjustment if the system is less than 80% funded or two cost of living adjustments if the system is at least 80% funded. R.S. 11:1145.1(2) sets forth the basis for determining the maximum percentage increase in the benefits permissible. The maximum percentage increase is based upon the funded percentage of the system as of the most recent actuarial valuation, and is limited to 2.0% in any year in which the system does not earn an actuarial rate of return of at least 7.25%, according to the following:

Funded Percentage of the System	Maximum Percent COLA
At least 80%	3.0%
At least 75% but less than 80%	2.5%
At least 65% but less than 75%	2.0%
At least 55% but less than 65%	1.5%
Less than 55%	No COLA permitted

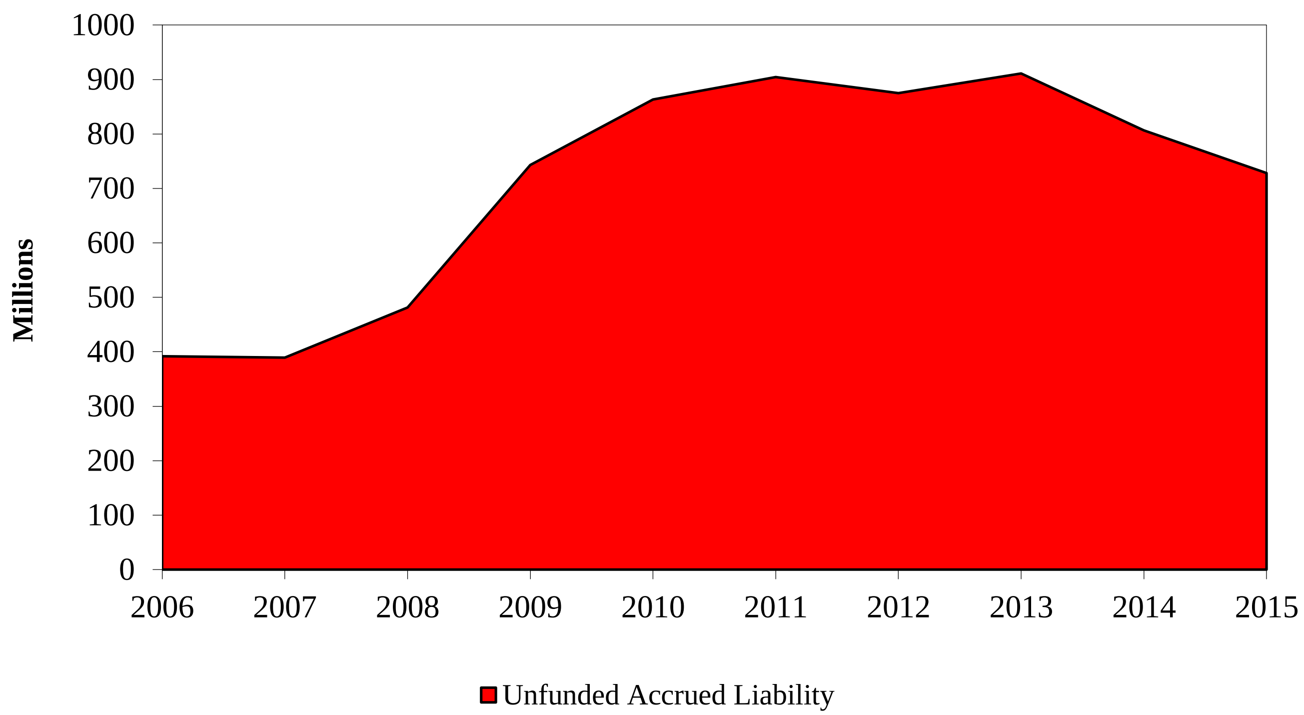
In addition, if the fund is less than 85% funded and the legislature granted a cost of living adjustment in the preceding fiscal year, no increase may be granted.

If there are sufficient funds in the Experience Account and the system met the necessary criteria to grant a cost of living adjustment, the Board of Trustees may recommend to the President of the Senate and the Speaker of the House of Representatives that the system be permitted to grant a cost of living adjustment. Cost of living adjustments are based on the benefit in payment at the time the adjustment is approved with a maximum adjustment based on the first $60,000 of benefits, where the $60,000 limit is increased annually by the consumer price index for all urban consumers from July 1, 2015. No cost of living adjustment can be paid in an amount greater than the increase in the Consumer Price Index for all urban consumers during the twelve month period ending on the system's valuation date. Cost of living adjustments may be provided only to retirees who have received benefits for at least one full year. In addition, non-disabled retirees may only receive a cost of living adjustment if they have attained age sixty.

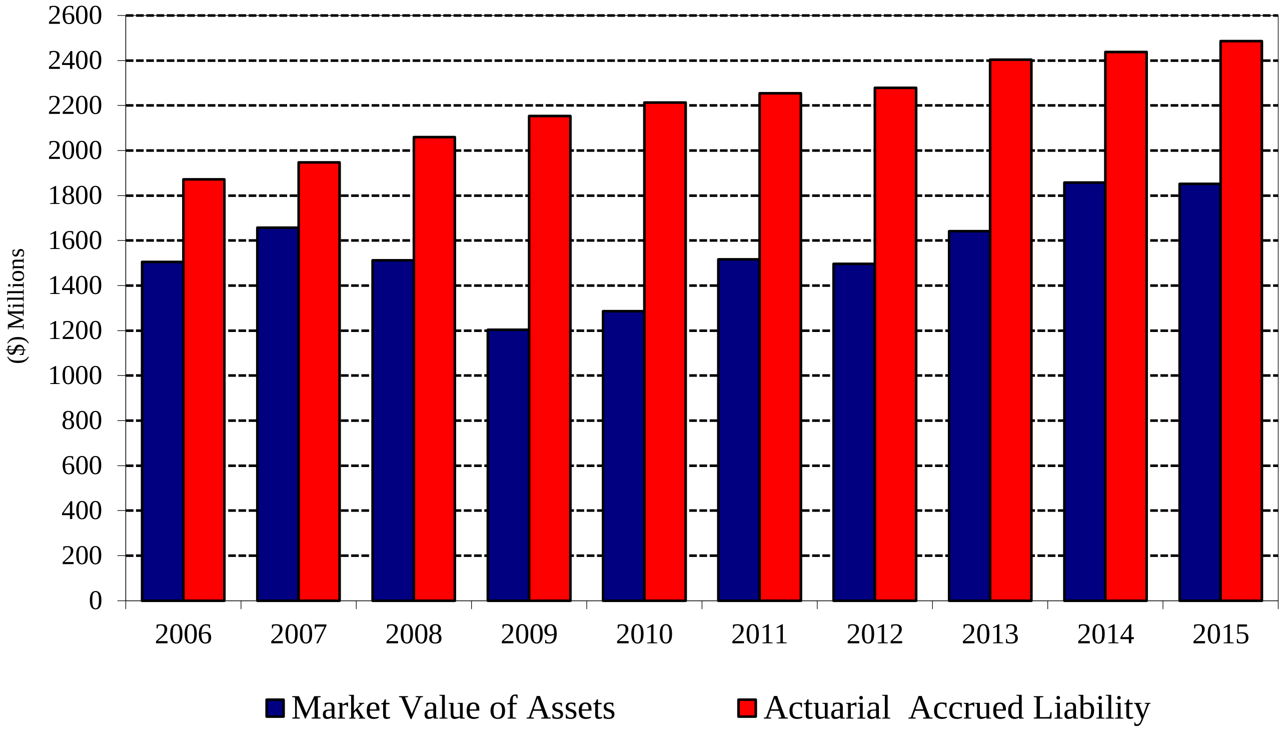
Components of Present Value of Future Benefits
June 30, 2015



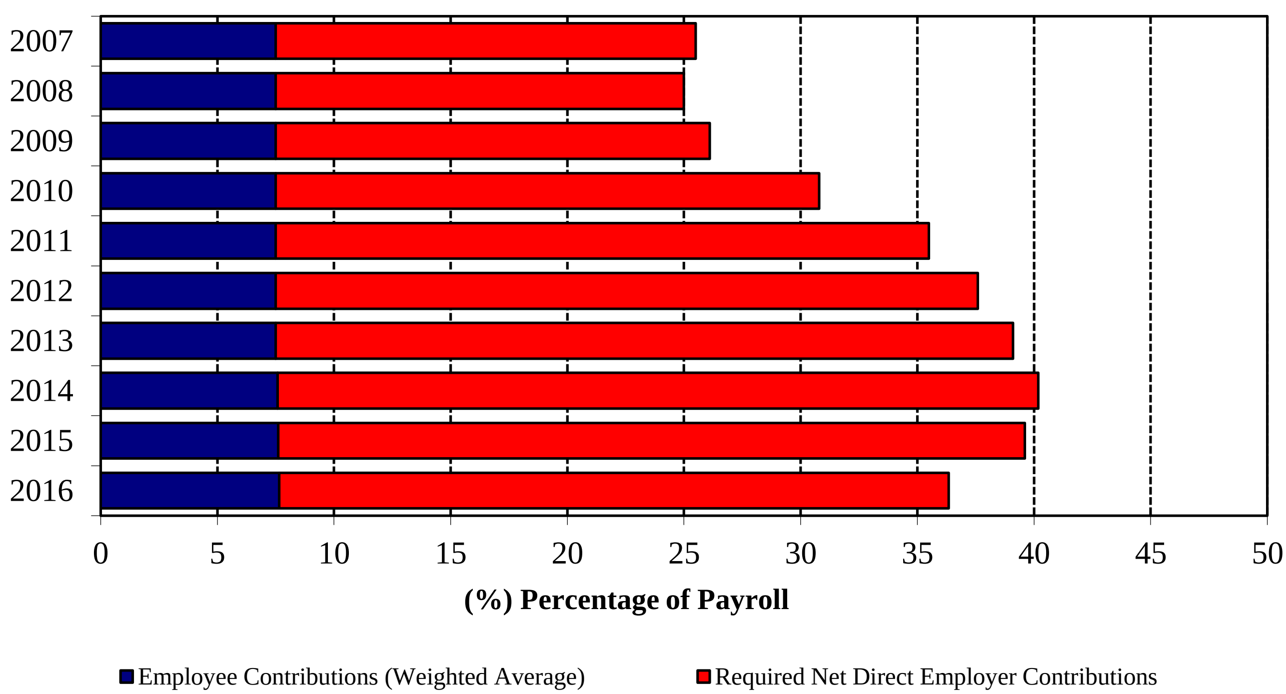
Unfunded Accrued Liability



Market Value of Assets vs. Actuarial Accrued Liability

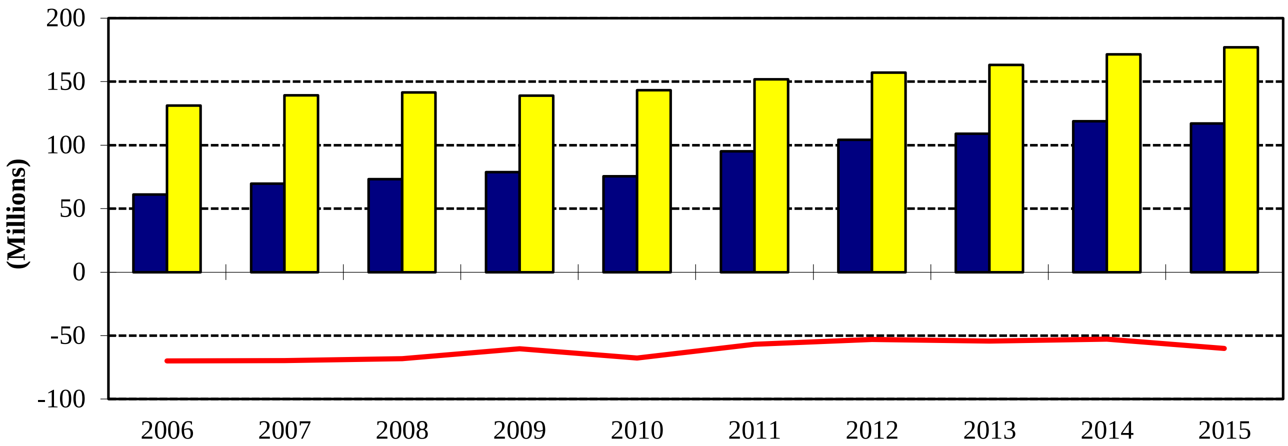


Components of Actuarial Funding



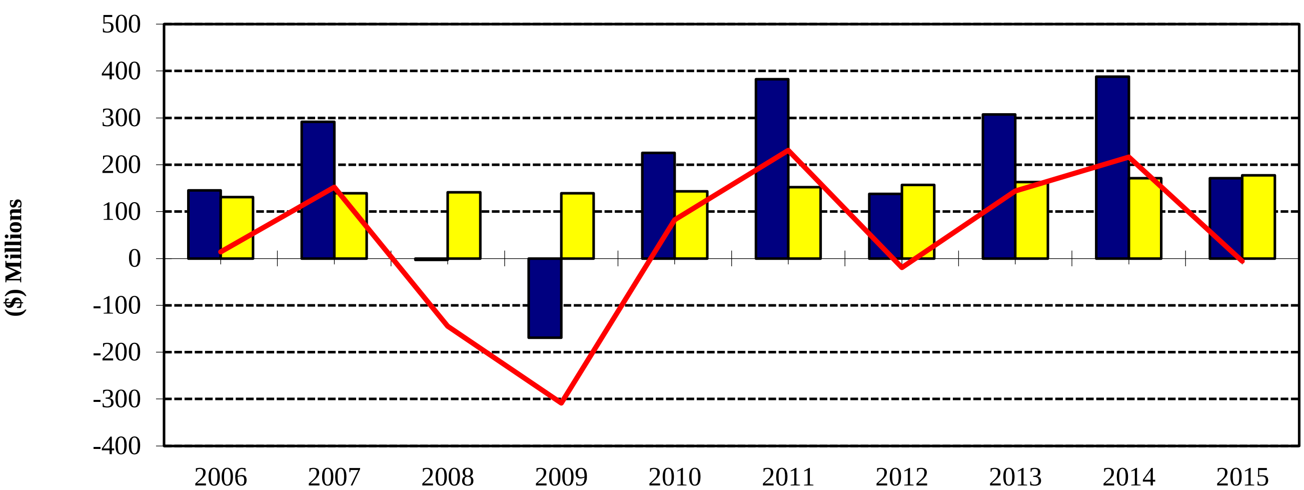
(2012 and later employee contribution level is a weighted average of rates paid by employees in different tiers)

Net Non-Investment Income



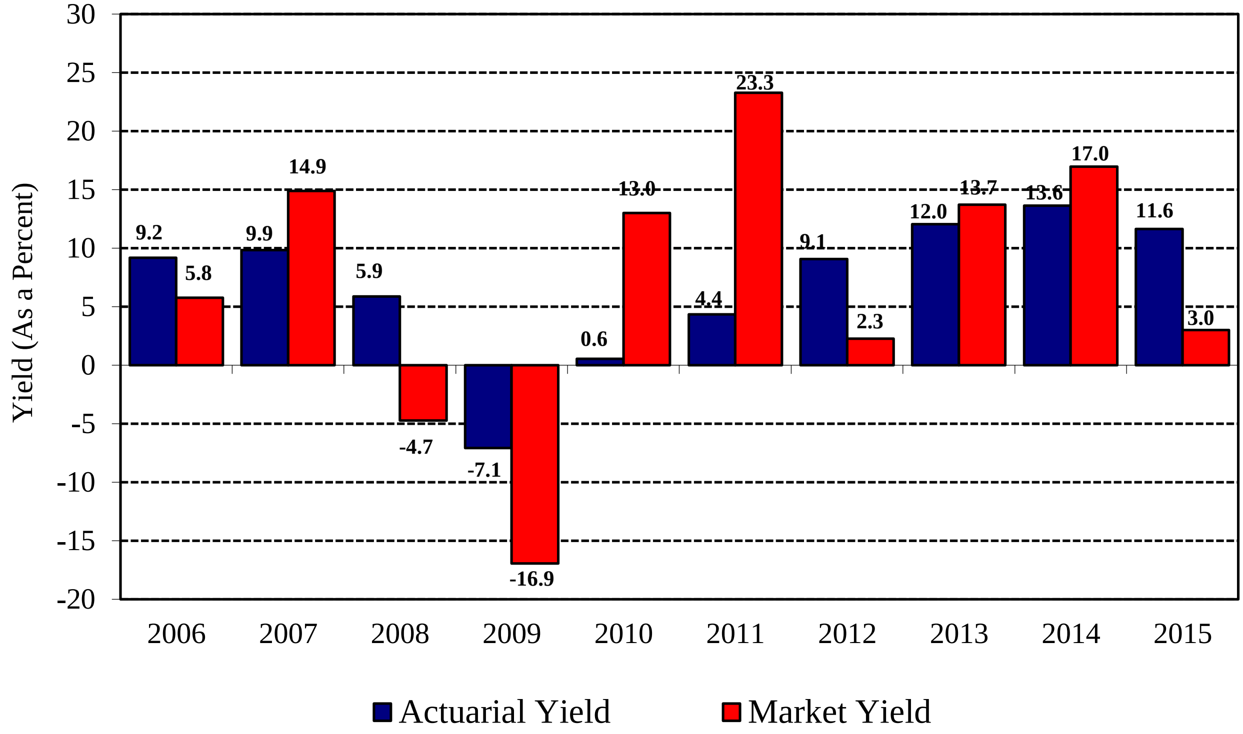
		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Non-Investment Income ($Mil)		61.2	69.7	73.2	78.7	75.6	95.1	104.3	109.0	118.9	117.1
Benefits and Expenses ($Mil)		131.2	139.3	141.4	139.1	143.3	151.9	157.2	163.3	171.6	177.1
Net Non-Investment Income ($Mil)		-70.0	-69.6	-68.2	-60.4	-67.7	-56.8	-52.9	-54.3	-52.7	-60.0

Total Income vs. Expenses
(Based on Market Value of Assets)



		2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Total Income ($Mil)		145.2	291.5	-3.0	-169.5	225.5	382.7	137.7	307.3	387.8	171.2
Benefits and Expenses ($Mil)		131.2	139.3	141.4	139.1	143.3	151.9	157.2	163.3	171.6	177.1
Net Change in MVA ($Mil)		14.0	152.2	-144.4	-308.6	82.2	230.8	-19.5	144.0	216.2	-5.9

Historical Asset Yields



EXHIBITS

EXHIBIT I
ANALYSIS OF ACTUARIALLY REQUIRED CONTRIBUTIONS

1.	Normal Cost of Retirement Benefits	$	37,054,685
2.	Normal Cost of Death Benefits	$	1,791,293
3.	Normal Cost of Disability Benefits	$	1,851,043
4.	Normal Cost of Deferred Retirement Benefits	$	2,675,383
5.	Normal Cost of Contribution Refunds	$	4,363,901
6.	TOTAL Normal Cost as of July 1, 2015 (1 + 2 + 3 + 4 + 5)	$	47,736,305
7.	TOTAL Normal Cost Interest Adjusted for Midyear Payment	$	49,378,818
8.	Adjustment to Total Normal Cost for Employee Portion	$	21,563,122
9.	TOTAL Employer Normal Cost Adjusted for Midyear Payment (7 – 8)	$	27,815,696
10.	Amortization Payments on Unfunded Accrued Liability	$	57,714,437
11.	TOTAL Normal Cost & Amortization Payments (9 + 10)	$	85,530,133
12.	Amortization Conversion Account Supplement for Fiscal 2016	$	(3,359,318)
13.	Net Direct Actuarially Required Employer Contribution for Fiscal 2016	$	82,170,815
12.	Projected Payroll For Contributing Members (Fiscal 2016)	$	286,161,805
13.	Net Direct Actuarially Required Employer Contribution as a Percentage of Projected Payroll for Fiscal 2016 (12 ÷ 13)		28.7%
14.	Actual Net Direct Employer Contribution Rate for Fiscal 2016		30.2%
15.	Projected Fiscal 2016 Contribution Loss (Gain) as a % of Payroll (13 – 14)		(1.5%)
16.	Projected Fiscal 2016 Employer Contribution Shortfall (Surplus) (12 × 15)	$	(4,292,427)
17.	Estimated Amortization of Fiscal 2016 Employer Contribution Shortfall (Surplus) Based on Midyear Payment in Fiscal 2017	$	(1,046,883)
18.	Estimated Fiscal 2017 Employer Normal Cost Adjusted for Midyear Payment	$	28,740,912
19.	Estimated Fiscal 2017 Amortization Payments based on Fiscal 2016 UAL	$	57,714,437
20.	Amortization Conversion Account Supplement for Fiscal 2017	$	(4,613,318)
21.	Estimated Actuarially Required Employer Contributions for Fiscal 2017 (17 + 18 + 19 + 20)	$	80,795,148
22.	Projected Payroll For Contributing Members (Fiscal 2017)	$	295,680,223
23.	Minimum Recommended Net Direct Employer Contribution Rate for Fiscal 2017 (21 ÷ 22, Rounded to nearest 0.10%)		27.3%

EXHIBIT II
PRESENT VALUE OF FUTURE BENEFITS

PRESENT VALUE OF FUTURE BENEFITS FOR ACTIVE MEMBERS:

Retirement Benefits	$ 1,123,053,220	
Survivor Benefits	27,908,012	
Disability Benefits	24,712,618	
Vested Termination Benefits	64,123,508	
Refunds of Contributions	34,631,383	
TOTAL Present Value of Future Benefits for Active Members		$ 1,274,428,741

PRESENT VALUE OF FUTURE BENEFITS FOR TERMINATED MEMBERS:

Terminated Vested Members Due Benefits at Retirement	$ 20,725,727	
Terminated Members with Reciprocals Due Benefits at Retirement	296,696	
Terminated Members Due a Refund	6,529,646	
TOTAL Present Value of Future Benefits for Terminated Members		$ 27,552,069

PRESENT VALUE OF FUTURE BENEFITS FOR RETIREES:

Regular Retirees	$ 1,303,895,250	
Disability Retirees	25,036,345	
Survivors & Widows	120,887,197	
DROP Account Balances Payable to Retirees	28,593,251	
IBRP Account Balance	1,397,491	
TOTAL Present Value of Future Benefits for Retirees & Survivors		$ 1,479,809,534

TOTAL Present Value of Future Benefits	$ 2,781,790,344

EXHIBIT III – SCHEDULE A
MARKET VALUE OF ASSETS

CURRENT ASSETS:		
Cash in Banks	$ 47,855,816	
Contributions Receivable	16,832,874	
Privatization Payments Receivable	1,862,710	
Investments Receivable	2,122,957	
Accrued interest and dividends	3,273,326	
Other Current Assets	444,058	
TOTAL CURRENT ASSETS		$ 72,391,741
Property Plant & Equipment		$ 2,989,650
INVESTMENTS:		
Cash Equivalents	$ 104,171,600	
Equities	1,110,479,571	
Fixed Income	347,330,145	
Real Estate	185,277,185	
Alternative Investments	113,049,976	
Collateral for Securities Lending	179,300,866	
TOTAL INVESTMENTS		$ 2,039,609,343
OTHER ASSETS		$ 573,210
TOTAL ASSETS		$ 2,115,593,944
CURRENT LIABILITIES:		
Securities Lending Obligations	$ 179,300,866	
Investments Payable	80,077,692	
Other Post-Employment Benefits	3,146,104	
Accounts Payable	1,480,507	
Accrued payroll and taxes	102,594	
TOTAL CURRENT LIABILITIES		$ 264,107,763
MARKET VALUE OF ASSETS		$ 1,851,456,181

EXHIBIT III – SCHEDULE B
ACTUARIAL VALUE OF ASSETS

Excess (Shortfall) of invested income for current and previous 4 years: †

Fiscal year 2015	$	(76,298,518)
Fiscal year 2014		153,829,757
Fiscal year 2013		89,907,429
Fiscal year 2012		(76,675,989)
Fiscal year 2011		194,915,640
Total for five years	$	285,678,319

Deferral of excess (shortfall) of invested income:

Fiscal year 2015 (80%)	$	(61,038,814)
Fiscal year 2014 (60%)		92,297,854
Fiscal year 2013 (40%)		35,962,972
Fiscal year 2012 (20%)		(15,335,198)
Fiscal year 2011 (0%)		0
Total deferred for year	$	51,886,814

Market value of plan net assets, end of year	$	1,851,456,181
Preliminary actuarial value of plan assets, end of year	$	1,799,569,367
Experience Account Balance, end of year	$	23,058,055
Amortization Conversion Account Balance, end of year	$	19,079,106
Adjusted Actuarial Value of Plan Assets (Net of side funds), end of year	$	1,757,432,206

Actuarial value of assets corridor

85% of market value, end of year	$	1,573,737,754
115% of market value, end of year	$	2,129,174,608

Final actuarial value of plan net assets, end of year	$	1,757,432,206

† Excess (shortfall) of actual investment income versus expected investment income is calculated based on assets and income adjusted to exclude the money market DROP accounts.

EXHIBIT IV
PRESENT VALUE OF FUTURE CONTRIBUTIONS

Employee Contributions to the Annuity Savings Fund	$	128,101,036
Employer Normal Contributions to the Pension Accumulation Fund		168,106,121
Employer Amortization Payments to the Pension Accumulation Fund		728,150,981
TOTAL PRESENT VALUE OF FUTURE CONTRIBUTIONS	$	1,024,358,138

EXHIBIT V - SCHEDULE A
ACTUARIAL ACCRUED LIABILITIES

LIABILITY FOR ACTIVE MEMBERS			
Accrued Liability for Retirement Benefits	$890,455,932		
Accrued Liability for Survivor Benefits	17,190,380		
Accrued Liability for Disability Benefits	13,719,843		
Accrued Liability for Vested Termination Benefits	47,668,301		
Accrued Liability for Refunds of Contributions	9,187,128		
TOTAL Actuarial Accrued Liability for Active Members		$	978,221,584
LIABILITY FOR TERMINATED MEMBERS		$	27,552,069
LIABILITY FOR RETIREES AND SURVIVORS		$	1,479,809,534
TOTAL ACTUARIAL ACCRUED LIABILITY		$	2,485,583,187
ACTUARIAL VALUE OF ASSETS		$	1,757,432,206
UNFUNDED ACTUARIAL ACCRUED LIABILITY		$	728,150,981

EXHIBIT V - SCHEDULE B
CHANGE IN UNFUNDED ACTUARIAL ACCRUED LIABILITY

PRIOR YEAR UNFUNDED ACCRUED LIABILITY			$	806,632,711
Interest on Unfunded Accrued Liability	$	58,480,872		
Liability Assumption Loss		53,611,597		
Transfer to Experience Account		23,058,055		
TOTAL Additions to UAL			$	135,150,524
Adjustment Due to Data Changes/Changes in Method with interest		42,073,134		
Investment Gain		70,571,435		
Liability Experience Gain		29,473,558		
Contribution Excess with accrued interest		3,883,540		
Interest Adjusted Amortization Payments		67,630,587		
TOTAL Reductions to UAL			$	213,632,254
NET Change in Unfunded Accrued Liability			$	(78,481,730)
CURRENT YEAR UNFUNDED ACCRUED LIABILITY			$	728,150,981

EXHIBIT V - SCHEDULE C
AMORTIZATION OF UNFUNDED ACTUARIAL ACCRUED LIABILITY
JUNE 30, 2015

FISCAL YEAR	DESCRIPTION	AMORT. PERIOD	INITIAL BALANCE	YEARS REMAINING		REMAINING BALANCE	AMORT. PAYMENTS
2014	Cumulative Bases	30	904,498,330	29	†	868,813,355	68,153,884
2014	Asset Experience Gain (Allocated by Act 399 of 2014)	5	(7,500,000)	4		(6,202,309)	(1,711,305)
2014	Liability Experience Gain	30	(81,635,532)	29		(80,809,412)	(6,151,231)
2014	Contribution Shortfall	5	823,919	4		681,360	187,997
2015	Change in Data/Model	30	(42,073,134)	30		(42,073,134)	(3,168,713)
2015	Change in Assumptions Loss	30	53,611,596	30		53,611,596	4,037,725
2015	Net Investment Gain	30	(32,513,380)	30		(32,513,380)	(2,448,726)
2015	Liability Experience Gain	30	(29,473,558)	30		(29,473,557)	(2,219,783)
2015	Contribution Surplus	5	(3,883,540)	5		(3,883,540)	(885,196)

TOTAL Unfunded Actuarial Accrued Liability	$ 728,150,981	
TOTAL Fiscal 2016 Amortization Payments at Beginning of Year		$ 55,794,652
TOTAL Fiscal 2016 Amortization Payments Adjusted to Mid-Year		$ 57,714,437

† Balance reduced by application of investment gains assigned by Act 399 of 2014.

EXHIBIT V – SCHEDULE D
CUMULATIVE AMORTIZATION BASE ADJUSTMENT

2014 Initial Cumulative Amortization Base	$	905,696,581
Applied Base Reduction for Privatization Liability		(1,198,251)
2014 Net Initial Cumulative Amortization Base		904,498,330
2014 Priority Excess Interest Applied to Base		(7,500,000)
2014 PBI Cap Excess Applied to Base		(3,252,257)
2014 Adjusted Initial Amortization Base	$	893,746,073
Amortization Payment (Beginning of Year)		(69,677,675)
Interest on Amortization Base net of Amortization Payment		59,744,957
Net Adjusted Balance	$	883,813,355
2015 Priority Excess Interest Applied to Base		(15,000,000)
Net Balance as of June 30, 2015 on 2014 Cumulative Base	$	868,813,355

EXHIBIT VI
ANALYSIS OF CHANGE IN ASSETS

Actuarial Value of Assets (June 30, 2014)		$ 1,631,618,702
INCOME:		
Member Contributions	$ 20,552,109	
Employer Contributions	92,365,229	
Irregular Contributions	4,216,863	
Total Contributions		$ 117,134,201
Net Appreciation (Depreciation) of Investments	$ 33,177,431	
Interest & Dividends	20,067,672	
Alternative Investment Income	6,162,266	
Miscellaneous Income	456,435	
Investment Expense	(5,772,775)	
Net Investment Income		$ 54,091,029
TOTAL Income		$ 171,225,230
EXPENSES:		
Retirement Benefits	$ 153,265,821	
DROP Disbursements	14,351,603	
Refunds of Contributions	4,213,790	
Transfers to Other Systems	382,937	
Administrative Expenses	4,921,954	
TOTAL Expenses		$ 177,136,105
Net Market Value Income for Fiscal 2015 (Income - Expenses)		$ (5,910,875)
Income Adjustment for Actuarial Smoothing		$ 131,724,379
Actuarial Value of Assets: (June 30, 2015)		$ 1,757,432,206

EXHIBIT VII – SCHEDULE A
EMPLOYEE EXPERIENCE ACCOUNT

1.	Experience Account Balance - June 30, 2014	$	20,787,326
2.	Present Value of Cost of Living Adjustment Paid July 1, 2014	$	(20,787,326)
3.	Experience Account Balance as of July 1, 2014 (Net of COLAs Paid) (1 – 2)	$	0
4.	Maximum Permissible Experience Account Balance (June 30, 2015)	$	23,058,055
5.	Maximum Permissible Experience Account Credit for Fiscal 2015 (4 – 3)	$	23,058,055
6.	Income (loss) on the Net Beginning Balance (Based on AVA rate of return)	$	0
7.	Investment Gain, if any	$	70,571,435
8.	Priority Excess Interest Allocated to Reduce UAL	$	15,000,000
9.	Residual Investment Gain, if any (7 – 8)	$	55,571,435
10.	Investment Gain to be Allocated to the Experience Account (50% × 9)	$	27,785,717
11.	Total Funds Available to be Allocated to the Experience Account (6 +10)	$	27,785,717
12.	Funds Credited to the Experience Account (Lesser of 5 & 11)	$	23,058,055
13.	Experience Account Balance - June 30, 2015 (3 +12)	$	23,058,055

EXHIBIT VII – SCHEDULE B
AMORTIZATION CONVERSION ACCOUNT

Amortization Conversion Account Balance as of June 30, 2014 .... $ 19,640,033

Fiscal Year Supplemental Contributions to be funded by the Amortization Conversion Account:

2014-15	$	560,927
2015-16		3,359,318
2016-17		4,613,318
2017-18		4,267,895
2018-19		2,278,309
Total		15,079,767

Residual balance as of June 30, 2019 to be amortized as a gain $ 4,560,266

Amortization Conversion Account Balance as of June 30, 2015 .... $ 19,079,106

EXHIBIT VIII
CENSUS DATA

	Active	Terminated with Funds on Deposit	DROP	Retired	Total
Number of members as of June 30, 2014	12,054	4,206	537	† 12,711	29,508
Additions to Census					
Initial membership	1,195	53			1,248
Omitted in error last year			5	121	126
Death of another member				118	118
Adjustment for multiple records				17	17
Change in Status during Year					
Actives terminating service	(396)	396			
Actives who retired	(400)			400	
Actives entering DROP	(249)	‡ (111)	360		
Term. members rehired	58	(58)			
Term. members who retire		(58)		58	
Retirees who are rehired					
Refunded who are rehired	26	11			37
DROP participants retiring			(133)	133	
DROP returned to work	106		(106)		
Omitted in error last year					
Eliminated from Census					
Refund of contributions	(298)	(204)			(502)
Deaths	(35)	(19)	(3)	† (534)	(591)
Included in error last year					
Adjustment for multiple records					
Number of members as of June 30, 2015	12,061	4,216	660	13,024	29,961

† Adjustments were made to June 2014 census to account for 739 incorrectly coded survivor records.

‡ Members entering DROP in fiscal 2014 who were not processed by the time data was provided for actuarial valuation in fiscal 2014 were coded as Terminated Vested in 2014 valuation.

ACTIVES CENSUS BY AGE:

Age	Number Male	Number Female	Total Number	Average Salary	Total Salary
16 – 20	3	3	6	20,355	122,132
21 – 25	90	51	141	20,059	2,828,387
26 – 30	160	158	318	21,782	6,926,617
31 – 35	236	347	583	21,714	12,659,389
36 – 40	310	541	851	22,074	18,784,827
41 – 45	416	753	1,169	22,954	26,833,312
46 – 50	707	1,223	1,930	23,444	45,246,265
51 – 55	991	1,570	2,561	23,613	60,471,662
56 – 60	982	1,288	2,270	23,650	53,686,344
61 – 65	586	588	1,174	22,234	26,102,834
66 – 70	304	347	651	22,340	14,543,272
71 – 75	160	140	300	21,949	6,584,628
76 – 80	49	42	91	20,157	1,834,332
81 – 85	9	6	15	20,605	309,080
86 – 90	1	0	1	16,719	16,719
TOTAL	5,004	7,057	12,061	22,962	276,949,800

THE ACTIVE CENSUS INCLUDES 4,820 ACTIVES WITH VESTED BENEFITS, INCLUDING 553 ACTIVE FORMER DROP PARTICIPANTS. THE 660 CURRENT DROP PARTICIPANTS ARE EXCLUDED.

DROP PARTICIPANTS:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
46 – 50	4	0	4	28,801	115,202
51 – 55	37	13	50	32,974	1,648,693
56 – 60	86	89	175	22,256	3,894,722
61 – 65	179	202	381	14,527	5,534,823
66 – 70	17	16	33	7,123	235,048
71 – 75	10	3	13	7,880	102,444
76 – 80	1	2	3	6,408	19,224
81 – 85	1	0	1	4,044	4,044
TOTAL	335	325	660	17,506	11,554,200

TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
31 - 35	2	1	3	7,981	23,943
36 - 40	3	1	4	12,662	50,648
41 - 45	9	7	16	8,415	134,640
46 - 50	21	26	47	10,107	475,020
51 - 55	34	35	69	10,798	745,059
56 - 60	40	62	102	10,653	1,086,606
61 - 65	8	11	19	8,546	162,365
66 - 70	2	7	9	7,812	70,306
71 - 75	2	2	4	7,023	28,092
76 - 80	1	1	2	1,713	3,425
91 - 99	0	1	1	3,792	3,792
TOTAL	122	154	276	10,087	2,783,896

TERMINATED MEMBERS DUE A REFUND OF CONTRIBUTIONS:

Contributions Ranging From		To	Number	Total Contributions
0	-	99	961	35,127
100	-	499	1,067	271,492
500	-	999	489	350,241
1000	-	1999	492	712,793
2000	-	4999	560	1,797,837
5000	-	9999	267	1,880,565
10000	-	19999	99	1,274,737
20000	-	99999	5	113,607
		TOTAL	3,940	6,436,399

REGULAR RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
41 - 45	1	0	1	11,640	11,640
46 - 50	14	4	18	13,839	249,108
51 - 55	159	60	219	20,403	4,468,213
56 - 60	363	320	683	19,663	13,429,891
61 - 65	761	959	1,720	15,908	27,362,377
66 - 70	941	1,371	2,312	13,470	31,142,427
71 - 75	875	1,358	2,233	10,973	24,502,276
76 - 80	732	1,115	1,847	9,525	17,592,679
81 - 85	491	702	1,193	9,285	11,077,215
86 - 90	276	278	554	10,121	5,606,976
91 - 99	82	99	181	10,436	1,888,980
TOTAL	4,695	3,269	10,961	12,529	137,331,782

DISABILITY RETIREES:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
36 - 40	0	1	1	23,413	23,413
41 - 45	3	8	11	8,927	98,193
46 - 50	16	24	40	7,797	311,880
51 - 55	34	54	88	8,985	790,723
56 - 60	49	104	153	7,597	1,162,410
61 - 65	15	7	22	7,498	164,952
66 - 70	4	4	8	6,189	49,512
71 - 75	2	3	5	6,499	32,496
76 - 80	2	0	2	6,648	13,296
81 - 85	0	1	1	4,296	4,296
86 - 90	0	1	1	4,068	4,068
TOTAL	125	207	332	7,998	2,655,239

SURVIVORS:

Age	Number Male	Number Female	Total Number	Average Benefit	Total Benefit
0 - 25	9	24	33	12,585	415,314
26 - 30	1	3	4	8,373	33,492
31 - 35	4	2	6	5,688	34,128
36 - 40	1	8	9	7,300	65,700
41 - 45	8	14	22	8,899	195,768
46 - 50	9	20	29	7,325	212,424
51 - 55	9	59	68	9,928	675,099
56 - 60	21	87	108	9,948	1,074,336
61 - 65	34	137	171	9,291	1,588,728
66 - 70	42	186	228	9,649	2,199,984
71 - 75	56	226	282	8,110	2,286,912
76 - 80	54	249	303	7,510	2,275,668
81 - 85	29	216	245	7,843	1,921,518
86 - 90	12	138	150	8,468	1,270,224
91 - 99	5	68	73	8,155	595,308
TOTAL	294	1,437	1,731	8,576	14,844,603

ACTIVE MEMBERS:

Attained Ages	Completed Years of Service											
	0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 20	6											6
21 - 25	77	37	15	8	3	1						141
26 - 30	93	66	49	22	21	67						318
31 - 35	119	98	69	53	38	165	39	2				583
36 - 40	149	110	82	62	48	267	106	25	2			851
41 - 45	137	106	98	69	53	361	213	100	29	3		1,169
46 - 50	174	157	135	86	72	523	395	223	121	43	1	1,930
51 - 55	197	173	124	94	115	599	539	342	274	92	12	2,561
56 - 60	136	134	109	95	83	548	425	372	289	46	33	2,270
61 - 65	74	74	74	47	63	328	146	134	98	74	62	1,174
66 - 70	40	35	29	22	26	161	89	84	70	45	50	651
71 & Over	9	15	19	12	8	109	50	42	35	32	76	407
Totals	1211	1005	803	570	530	3129	2002	1324	918	335	234	12061

AVERAGE ANNUAL SALARY OF ACTIVE MEMBERS:

Attained Ages	Completed Years of Service											Average Salary
	0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	
0 - 20	20,355											20,355
21 - 25	19,434	19,888	20,800	22,228	25,683	29,240						20,059
26 - 30	19,757	21,583	20,654	22,743	21,193	25,481						21,782
31 - 35	20,391	19,594	21,859	20,240	20,634	23,037	27,370	39,524				21,714
36 - 40	19,708	20,417	20,034	20,572	21,942	22,659	26,017	30,208	33,991			22,074
41 - 45	19,281	20,597	20,648	21,231	20,969	22,492	24,562	29,930	32,456	41,024		22,954
46 - 50	19,969	20,269	21,680	21,731	22,321	22,454	23,587	26,218	31,202	32,752	95,989	23,444
51 - 55	20,872	21,780	20,998	20,508	22,389	22,775	23,744	25,599	25,915	30,552	31,565	23,613
56 - 60	20,127	20,689	21,096	21,582	21,685	22,302	24,622	25,286	26,731	27,340	28,841	23,650
61 - 65	18,450	19,214	21,368	20,313	20,618	21,519	22,999	24,745	23,382	23,624	27,567	22,234
66 - 70	20,748	17,658	20,458	19,167	18,039	21,466	22,049	22,603	24,594	27,501	26,701	22,340
71 & Over	21,351	18,071	17,518	17,166	21,150	20,246	20,091	22,884	21,094	24,733	24,622	21,486
Average	19,960	20,441	20,966	20,913	21,490	22,383	23,956	25,688	26,538	27,991	27,103	22,962

TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Attained Ages	Years Until Retirement Eligibility 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 30												0
31 - 35										3		3
36 - 40									4			4
41 - 45	1							15				16
46 - 50	1						46					47
51 - 55	7			1		61						69
56 - 60	20	19	23	16	24							102
61 - 65	19											19
66 - 70	9											9
71 - 75	4											4
76 - 80	2											2
81 - 85												0
86 - 90												0
91 & Over	1											1
Totals	64	19	23	17	24	61	46	15	4	3	0	276

AVERAGE ANNUAL BENEFITS OF TERMINATED MEMBERS DUE A DEFERRED RETIREMENT BENEFIT:

Attained Ages	Years Until Retirement Eligibility 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Average Benefit
0 - 30												0
31 - 35										7,981		7,981
36 - 40									12,662			12,662
41 - 45	2,191							8,830				8,415
46 - 50	2,652						10,269					10,107
51 - 55	4,563			33,612		11,139						10,798
56 - 60	10,369	10,912	10,635	11,560	10,097							10,653
61 - 65	8,545											8,545
66 - 70	7,812											7,812
71 - 75	7,023											7,023
76 - 80	1,713											1,713
81 - 85												0
86 - 90												0
91 & Over	3,792											3,792
Average	8,002	10,912	10,635	12,857	10,097	11,139	10,269	8,830	12,662	7,981	0	10,087

SERVICE RETIREES:

Attained Ages	Completed Years Since Retirement											
	0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 50	4	4	5	3	1	2						19
51 - 55	31	28	39	23	12	47	32	6		1		219
56 - 60	108	59	78	72	55	180	96	21	8	3	3	683
61 - 65	157	184	197	139	122	564	267	56	28	6		1,720
66 - 70	67	58	112	155	164	972	582	135	42	25		2,312
71 - 75	19	20	30	27	26	556	1026	400	92	34	3	2,233
76 - 80	9	11	8	12	17	110	591	827	191	55	16	1,847
81 - 85	4		2	4	4	18	78	459	474	128	22	1,193
86 - 90	2			1		4	11	64	204	218	50	554
91 & Over							3	9	19	70	80	181
Totals	401	364	471	436	401	2453	2686	1977	1058	540	174	10961

AVERAGE ANNUAL BENEFITS PAYABLE TO SERVICE RETIREES:

Attained Ages	Completed Years Since Retirement											
	0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Average Benefit
0 - 50	16,680	10,449	13,034	17,104	24,132	5,808						13,724
51 - 55	25,935	28,769	23,014	22,714	23,915	15,217	12,061	7,346		6,492		20,403
56 - 60	22,343	24,097	22,037	24,154	23,991	18,633	12,939	6,976	5,055	5,236	6,292	19,663
61 - 65	14,326	15,311	16,970	16,749	16,722	18,169	14,091	7,035	5,238	5,734		15,908
66 - 70	12,912	14,213	13,087	12,897	12,776	13,880	15,036	8,826	6,806	6,943		13,470
71 - 75	11,716	11,618	10,547	15,318	10,940	11,502	11,201	10,382	8,245	6,591	3,576	10,973
76 - 80	10,838	11,931	13,655	11,640	12,054	8,991	9,299	9,330	10,793	9,899	6,490	9,525
81 - 85	9,648		6,870	7,329	12,597	9,089	9,001	9,018	9,511	9,348	10,692	9,285
86 - 90	15,840			4,920		7,887	8,606	8,522	9,960	10,406	11,968	10,121
91 & Over							6,492	9,916	9,933	10,762	10,478	10,436
Average	16,929	17,237	16,836	16,577	15,725	14,431	11,893	9,316	9,472	9,661	10,375	12,529

DISABILITY RETIREES:

Attained Ages	Completed Years Since Retirement: 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 35												0
36 - 40	1											1
41 - 45	3	4	1	1	1	1						11
46 - 50	5	2	4	6	5	10	5	2	1			40
51 - 55	12	12	10	9	4	19	15	6	1			88
56 - 60	27	15	16	14	14	39	18	6	2	2		153
61 - 65	4	3	5	2	1	2	2	2		1		22
66 - 70	2	1	1		1		2			1		8
71 - 75		1	1	1					1	1		5
76 - 80		1			1							2
81 - 85			1									1
86 - 90											1	1
91 & Over												0
Totals	54	39	39	33	27	71	42	16	5	5	1	332

AVERAGE ANNUAL BENEFITS PAYABLE TO DISABILITY RETIREES:

Attained Ages	Completed Years Since Retirement: 0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Average Benefit
0 - 35												0
36 - 40	23,413											23,413
41 - 45	7,347	10,812	8,964	11,388	7,092	5,460						8,927
46 - 50	9,425	7,266	10,359	6,464	9,581	7,966	6,005	3,384	5,652			7,797
51 - 55	11,779	12,552	10,978	8,852	14,691	7,328	5,173	4,816	4,824			8,985
56 - 60	9,427	8,437	8,792	8,277	8,391	6,715	4,909	5,148	5,142	7,932		7,597
61 - 65	9,177	7,152	7,730	7,950	7,896	7,038	7,500	4,914		5,436		7,498
66 - 70	7,332	5,832	7,680		8,280		4,902			3,252		6,189
71 - 75		6,540	6,264	8,580					5,268	5,844		6,499
76 - 80		5,820			7,476							6,648
81 - 85			4,296									4,296
86 - 90											4,068	4,068
91 & Over												0
Average	9,997	9,605	9,173	8,188	9,440	7,047	5,257	4,774	5,206	6,079	4,068	7,998

SURVIVING BENEFICIARIES OF FORMER MEMBERS:

Attained Ages	Completed Years Since Retirement											
	0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	Total
0 - 20	2		1	3		7	3					16
21 - 25			1	1	1	8	2	4				17
26 - 30							3		1			4
31 - 35	1					1		2		1	1	6
36 - 40			1		1	1	2	1	1	1	1	9
41 - 45		1		1		2	8	4	4	1	1	22
46 - 50		1		1	1	3	7	11	2	3		29
51 - 55	1	3		5	3	15	19	10	8	2	2	68
56 - 60	3	3	2	3	8	27	29	20	11	2		108
61 - 65	2		4	4	4	40	47	39	23	7	1	171
66 - 70	1		5	3	9	37	74	69	18	7	5	228
71 - 75					3	16	65	114	55	24	5	282
76 - 80			2	1		12	23	114	101	35	15	303
81 - 85		2				3	5	45	100	58	32	245
86 - 90				1	1	1	4	7	39	58	39	150
91 & Over								3	5	19	46	73
Totals	10	10	16	23	31	173	291	443	368	218	148	1731

AVERAGE ANNUAL BENEFITS PAYABLE TO SURVIVORS OF FORMER MEMBERS:

Attained Ages	Completed Years Since Retirement											Average Benefit
	0	1	2	3	4	5- 9	10-14	15-19	20-24	25-29	30&Over	
0 - 20	19,178		22,080	18,908		10,533	14,612					14,670
21 - 25			13,248	12,408	15,732	9,057	8,430	12,471				10,623
26 - 30							10,136		3,084			8,373
31 - 35	10,872					7,320		2,850		7,452	2,784	5,688
36 - 40			8,520		8,412	12,960	5,766	4,992	10,716	4,908	3,660	7,300
41 - 45		11,808		12,948		14,748	10,176	4,110	5,976	17,940	1,824	8,899
46 - 50		11,856		5,520	15,840	8,260	8,858	5,715	5,424	6,236		7,325
51 - 55	10,335	14,992		15,994	7,108	12,811	10,599	5,473	5,703	6,306	5,994	9,928
56 - 60	11,000	13,556	10,836	8,936	9,402	12,445	11,376	6,368	5,671	10,662		9,948
61 - 65	11,802		15,324	11,517	14,172	11,239	9,030	8,247	6,105	8,475	5,724	9,291
66 - 70	13,476		12,502	10,076	11,591	12,435	9,553	8,398	8,445	8,991	5,606	9,649
71 - 75					7,920	7,231	8,889	7,496	8,798	8,460	5,638	8,110
76 - 80			8,100	9,576		6,200	7,180	7,443	8,050	7,532	5,682	7,510
81 - 85		6,888				7,296	5,402	6,347	8,419	8,162	8,058	7,843
86 - 90				4,272	8,832	2,496	9,504	6,862	8,706	9,016	7,850	8,468
91 & Over								8,552	7,603	7,042	8,649	8,155
Average	12,964	12,308	12,845	12,370	10,649	10,827	9,335	7,416	8,058	8,266	7,630	8,576

EXHIBIT IX
YEAR-TO-YEAR COMPARISON

	Fiscal 2015	Fiscal 2014	Fiscal 2013	Fiscal 2012
Number of Active Members	12,061	12,054	12,184	12,416
Number of Retirees & Survivors	13,024	12,711	13,369	12,930
DROP Participants	660	537	559	612
Number of Terminated Due Deferred Benefits	276	413	355	339
Number Terminated Due Refunds	3,940	3,793	N/A	N/A
Active Lives Payroll (excludes DROP participants)	$ 276,949,800	$ 274,347,650	$ 290,013,756	$ 277,191,001
Retiree Benefits in Payment	$ 154,831,624	$ 146,084,220	$ 142,752,516	$ 134,573,580
Market Value of Assets (Includes Side Funds)	$ 1,851,456,181	$ 1,857,367,056	$1,641,164,883	$ 1,497,109,136
Ratio of Actuarial Value of Assets to Actuarial Accrued Liability	70.71%	66.92%	62.10%	61.60%
Actuarial Accrued Liability (EAN)	$ 2,485,583,188	$ 2,438,251,413	$ 2,404,014,249	$ 2,278,472,127
Actuarial Value of Assets (Net of Side Funds)	$ 1,757,432,206	$ 1,631,618,702	$ 1,492,914,745	$ 1,403,463,883
UAL (Funding Excess)	$ 728,150,982	$ 806,632,711	$ 911,099,504	$ 875,008,244
Employee Experience Account	$ 23,058,055	$ 20,787,326	$ 31,668,697	$ 11,641,275
Amortization Conversion Account	$ 19,079,106	$ 19,640,033	$ 0	$ 0

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	Fiscal 2016	Fiscal 2015	Fiscal 2014	Fiscal 2013
Employee Contribution Rate For Employees Hired Before July 1, 2010	7.50%	7.50%	7.50%	7.50%
Employee Contribution Rate For Employees Hired On Or After July 1, 2010	8.00%	8.00%	8.00%	8.00%
Actuarially Required Employer Contribution as a Percentage of Projected Payroll	28.7%	32.0%	32.6%	31.6%
Actual Employer Contribution as a Percentage of Projected Payroll	30.2%	33.0%	32.3%	30.8%

Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008	Fiscal 2007	Fiscal 2006
12,854	13,166	13,265	13,153	12,935	13,079
12,717	12,450	12,290	12,159	12,017	11,687
619	599	508	583	673	732
351	355	361	385	385	292
N/A	N/A	N/A	N/A	N/A	N/A
$ 296,693,950	$ 306,332,902	$ 315,400,539	$ 289,528,924	$ 259,044,840	$ 239,320,589
$ 128,989,260	$ 123,992,280	$ 120,719,868	$ 118,321,000	$ 115,079,088	$ 110,434,116
$1,516,634,590	$ 1,285,852,191	$ 1,203,687,757	$ 1,512,241,849	$ 1,656,629,333	$ 1,504,395,671
59.88%	61.00%	65.49%	76.64%	80.01%	79.07%
$2,254,351,456	$ 2,213,362,198	$ 2,153,359,512	$ 2,060,241,891	$ 1,947,603,013	$ 1,872,594,265
$1,349,829,757	$ 1,350,072,547	$ 1,410,315,974	$ 1,578,991,310	$ 1,558,328,021	$ 1,480,748,380
$ 904,521,699	$ 863,289,651	$ 743,043,538	$ 481,250,581	$ 389,274,992	$ 391,845,885
$ 0	$ 0	$ 0	$ 0	$ 0	$ 0
$ 0	$ 0	$ 0	$ 0	$ 0	$ 0

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Fiscal 2012	Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008	Fiscal 2007
7.50%	7.50%	7.50%	7.50%	7.50%	7.50%
8.00%	8.00%	N/A	N/A	N/A	N/A
30.1%	28.0%	23.3%	18.6%	17.5%	18.0%
28.6%	24.3%	17.6%	17.8%	18.1%	19.6%

SUMMARY OF PRINCIPAL PLAN PROVISIONS

The Louisiana School Employees' Retirement System (LSERS) was established as of July 1, 1947, for the purpose of providing retirement allowances and other benefits as described under R.S. 11:1001 - 11:1206. The following summary of plan provisions covers many of the most important plan provisions covering LSERS, but is not a description of every plan provision and should only be used for general informational purposes. This summary does not constitute a guarantee of benefits. The provisions contained within this section are as of June 30, 2015.

MEMBERSHIP:

Any school bus driver, janitor, custodian, maintenance employee, bus aide, monitor or attendant or other regular school employee helping with the transportation of school children, and who is a legal employee of a parish or city school board of the State of Louisiana along with employees of the system.

CONTRIBUTION RATES:

Employees whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred before July 1, 2010 contribute 7.50% of salary and employees whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred on or after July 1, 2010 contribute 8.00% of salary. Employers contribute an actuarially determined "normal contribution" rate plus "accrued liability contribution" rate. Members are not required to contribute to the system once they have enough service to have accrued 100% of their final average compensation, but the employer is required to continue to contribute the employer's contribution until the member retires or enters DROP.

CONTRIBUTION REFUNDS:

Upon withdrawal from service, members not entitled to a retirement allowance may receive a refund of accumulated contributions. Refunds are payable ninety days after the effective date of withdrawal from service, if the member's employer has submitted all contributions.

FINAL AVERAGE COMPENSATION:

For members whose first employment making them eligible for membership in the system began on or before June 30, 2006, the final average compensation is based on the 36 highest successive or joined months of employment. The compensation used to determine the final average compensation cannot increase more than 10% per year, unless the raise is due to an increase in compensation by legislative act or city/parish system-wide salary increase.

For members whose first employment making them eligible for membership in the system began or after July 1, 2006, whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred on or before June 30, 2010, the final average compensation is based on the 60 highest successive or joined months of employment. The compensation used to determine the final average compensation cannot increase more than 10% per year, unless the raise is due to an increase in compensation by legislative act or city/parish system-wide salary increase.

For members whose first employment making them eligible for membership in one of Louisiana's state retirement systems began on or after July 1, 2010, the final average compensation is based on the 60 highest successive or joined months of employment. The compensation used to determine the final average compensation cannot increase more than 15% per year, unless the raise is due to an increase in compensation by legislative act or city/parish system-wide salary increase.

VESTED WITHDRAWAL BENEFITS:

Members whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred on or before June 30, 2010, who have ten or more years of creditable service, may elect to leave accumulated contributions on deposit and after withdrawal from service receive a retirement allowance based on the creditable service and accrual rate for their period of membership upon reaching age sixty.

Members whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred on or after July 1, 2010 and on or before June 30, 2015, who have five or more years of creditable service, may elect to leave accumulated contributions on deposit and after withdrawal from service receive a retirement allowance based on the creditable service and accrual rate for their period of membership upon reaching age sixty.

Members whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred on or after July 1, 2015, who have five or more years of creditable service, may elect to leave accumulated contributions on deposit and after withdrawal from service receive a retirement allowance based on the creditable service and accrual rate for their period of membership upon reaching age sixty-two.

NORMAL RETIREMENT BENEFITS:

For members whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred on or before June 30, 2010, eligibility for normal retirement occurs upon the attainment of age 60 and 10 years of accredited service, or age 55 and 25 years of accredited service, or at any age and 30 years of accredited service. The retirement allowance is equal to three and one-third percent of the member's final average compensation multiplied by his years of creditable service.

For members whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred on or after July 1, 2010 and on or before June 30, 2015, eligibility for normal retirement occurs upon the attainment of age 60 and 5 years of accredited service. The retirement allowance is equal to two and one-half percent of the member's final average compensation multiplied by his years of creditable service.

For members whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred on or after July 1, 2015, eligibility for normal retirement occurs upon the attainment of age 62 and 5 years of accredited service. The retirement allowance is equal to two and one-half percent of the member's final average compensation multiplied by his years of creditable service.

In addition to the normal retirement benefits, members receive a supplementary allowance equal to twenty-four dollars per annum, or two dollars per month, for each year of accredited service.

The retirement benefits provided by the system cannot annually exceed one hundred percent of average compensation.

EARLY RETIREMENT:

Members are eligible to retire under the early retirement provisions if they have at least twenty (20) years of service credit regardless of attained age, exclusive of military service and unused annual and sick leave.

The early retirement benefit is calculated, inclusive of military service credit and allowable unused annual and sick leave, actuarially reduced from the earliest age that the member would normally become eligible for a regular retirement benefit if they had continued in service to that age.

OPTIONAL ALLOWANCES:

Members may receive their benefits as a life annuity, or in lieu of such receive a reduced benefit according to the option selected which is the actuarial equivalent of the maximum benefit.

Option 1 - If the retiree dies before receiving in annuity payments the present value of their annuity as it was at the time of retirement the balance is paid to his beneficiary.

Option 2 - Upon retirement, the member receives a reduced benefit. Upon the retiree's death, the designated beneficiary will continue to receive the same reduced benefit.

Option 3 - Upon retirement, the member receives a reduced benefit. Upon the retiree's death, the designated beneficiary will receive one-half of the member's reduced benefit.

Option 4 - Upon retirement, the member elects to receive a reduced benefit and to provide a specified benefit to their designated beneficiary, which in total is actuarially equivalent to the maximum benefit. The form of benefit selected under Option 4 must be approved by the Board of Trustees.

NOTE: Under Option 4, the Board of Trustees has approved the “pop up” form of benefit which provides a benefit that reverts to the maximum benefit if the beneficiary predeceases the retiree. This feature requires additional reduction to the member’s benefit. (The system refers to the available popup options as option 2A, providing a beneficiary benefit equal to the member’s reduced benefit and option 3A, providing a beneficiary benefit equal to one-half of the member’s reduced benefit)

A member may also elect to receive an actuarially reduced benefit which provides for an automatic 2½% annual compound increase in monthly retirement benefits based on the reduced benefit and commencing on the later of age fifty-five or retirement anniversary; this COLA is in addition to any ad hoc COLAs which are payable.

Initial Benefit Retirement Plan (IBRP): This plan is available only to members who have not participated in the Deferred Retirement Option Plan (DROP) and who meet regular retirement eligibility requirements. Under this plan, members may receive an initial benefit plus a reduced monthly retirement allowance which, when combined, equal the actuarially equivalent amount of the maximum or optional retirement allowance. The reduced monthly retirement allowance can be paid in the form of a maximum benefit or according to options 2, 3, or 4 as described above. The initial benefit may not exceed an amount equal to thirty-six payments of the member’s maximum retirement allowance. The initial benefit is placed in an account called an “IBRP Account” where interest is credited annually and can be withdrawn as a lump-sum payment, monthly payments, or other periodic payments.

DISABILITY BENEFITS:

Any member who meets the minimum service requirement for disability and who has been officially certified as likely totally and permanently incapacitated, either mentally or physically, from the further performance of the duties being performed is entitled to disability benefits.

A member whose first employment making them eligible for membership in LSERS occurred on or before June 30, 2006, may apply for disability benefits if he is not eligible to receive a regular service retirement allowance and has five years of actual credited service. The disability retirement allowance is equal to two and one-half percent of final average compensation multiplied by the years of creditable service, but not less than thirty-three and one-third percent of final average compensation. Such members are not eligible to choose an optional allowance. Upon the death of such disability retiree who leaves a surviving spouse who had been married to the deceased for at least two years prior to death, the spouse receives a benefit equal to 75% of the benefit being received by the disability retiree at death. These benefits are payable for the life of the spouse unless the spouse remarries before age 55. In such a case, the benefit ceases upon the remarriage.

A member whose first employment making them eligible for membership in LSERS occurred on or after July 1, 2006 and whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred on or before June 30, 2010 may apply for disability benefits if he is not eligible to receive a regular service retirement allowance and has ten years of actual credited service. The disability retirement allowance is equal to three percent of final average compensation multiplied by the years of creditable service. Upon the death of such disability retiree who leaves a surviving spouse who had been married to the deceased for at least two years prior to the death of the disability retiree, the spouse receives a benefit equal to 75% of the benefit being received by the disability retiree at their death. These benefits are payable for the life of the spouse unless the spouse remarries before age 55. In such a case, the benefit ceases upon the remarriage.

A member whose first employment making them eligible for membership in LSERS occurred on or after July 1, 2010 may apply for disability benefits if he is not eligible to receive a regular service retirement allowance and has ten years of actual credited service. The disability retirement allowance is equal to the regular retirement formula without reduction by reason of age. A selection of retirement option must be made at the time of retirement and upon the death of the disabled retiree, the option amount selected is paid to the option beneficiary.

SURVIVOR BENEFITS:

For members whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred on or before June 30, 2010:

In the case of a death of an active member with 5 years of creditable service (at least 2 years earned immediately prior to death) or a member with 20 years of service at the time of death who has a surviving spouse with a minor child or children, the benefit payable is 75% of the deceased member's final average compensation or $300 per month, whichever is greater. One-third of this benefit is designated to the spouse and two-thirds to the minor child or children. Child benefits cease at attainment of eighteen years, or upon marriage, except that benefits may continue until age twenty-three if the child remains a full-time student at a high school, vocational school, college, or university.

In the case of a death of an active member with 5 years of creditable service (at least 2 years earned immediately prior to death) or a member with 20 years of service at the time of death who has no surviving spouse but has a minor child or children, the benefit payable is 75% of the deceased member's final average compensation or $300 per month, whichever is greater. These benefits are paid to the person having legal custody of the child and benefits cease at attainment of eighteen years, or upon marriage, except that benefits may continue until age twenty-three if the child remains a full-time student at a high school, vocational school, college, or university.

In the case of a death of an active member with 10 years of creditable service (at least 2 years earned immediately prior to death) or a member with 20 years of service at the time of death who has a surviving spouse but has no minor child or children, the benefit payable is 50% of the deceased member's final average compensation or $200 per month, whichever is greater. Such benefits will not be paid to any surviving spouse who has remarried since the death of the member prior to the age of 55 unless the member was eligible for regular retirement or had twenty years of service credit on the date of death.

Any surviving child of a deceased member, regardless of age, who has a total physical or mental disability and is dependent on the surviving spouse or other legal guardian, may continue to receive lifetime surviving child benefits equal to 75% of the deceased member's final average compensation or $300 per month, whichever is greater. The total benefits are reduced to an amount which, when added to the other state assistance being received, does not exceed the maximum survivor benefits payable.

In the event of death of a member with no surviving spouse or child due benefits, the accumulated contributions are payable to the designated beneficiaries, or estate.

For members whose first employment making them eligible for membership in one of Louisiana's state retirement systems occurred on or after July 1, 2010:

In the case of a death of an active member with 5 years of creditable service (at least 2 years earned immediately prior to death) or a member with 20 years of service at the time of death who has a surviving spouse with a minor child or children, a spousal survivor is paid a benefit equal to 50% of the benefit to which the member would have been entitled if he had retired on the date of his death using the member's applicable accrual rate regardless of years of service or age, or $600 per month, whichever is greater.

These benefits are payable for the life of the spouse unless the spouse remarries before age 55. In such a case, the benefit ceases upon the remarriage, and resumes payment upon a subsequent divorce or death of a new spouse.

When all surviving children cease to be eligible for benefits, the surviving spouse is paid the benefits due to a surviving spouse without minor children or disabled children, as described below.

In addition to any benefits payable to a spouse or in cases where only surviving minor or disabled children are due benefits, each surviving eligible child, subject to a maximum of two children, is paid 50% percent of the benefit to which a spouse with children is entitled. These benefits are payable even if a member dies after retirement leaving an eligible minor or disabled child.

Any surviving child of a deceased member, regardless of age, who has a total physical or mental disability and is dependent on the surviving spouse or other legal guardian may continue to receive surviving child benefits. The total benefits paid are reduced to an amount which, when added to the other state assistance being received does not exceed the maximum survivor benefits payable.

In the case of a death of an active member with 10 years of creditable service (at least 2 years earned immediately prior to death) or a member with 20 years of service at the time of death who has a surviving spouse to whom they were married for at least one year prior to their death who has no minor child or children, a spousal survivor benefit equal to the accrued benefit that would have been due under option 2, or $600 per month, whichever is greater, is payable. Unless the member was eligible to retire at the time of death, such spousal benefits cease upon remarriage and resume upon a subsequent divorce or death of the new spouse.

In the event of death of a member with no surviving spouse or child due benefits, the accumulated contributions are payable to the designated beneficiaries, or estate.

DEFERRED RETIREMENT OPTION PLAN (DROP):

In lieu of terminating employment and accepting a service retirement allowance, any member of the system who is eligible to receive a regular retirement allowance may elect within sixty calendar days after the member reaches eligibility to participate in the Deferred Retirement Option Plan for up to thirty-six months and defer the receipt of benefits. Members who elect to participate in DROP within sixty days after first becoming eligible, can participate for a period up to thirty-six months. Members who elect to participate in DROP after more than sixty days after first becoming eligible must end their period of participation not more than three years and sixty calendar days from the date the member first becomes eligible for DROP. Upon commencement of participation in the plan, membership in the system terminates and neither the employee nor employer contributions are payable. Compensation and creditable service remain as they existed on the effective date of commencement of participation in the plan and creditable service excludes conversion of sick and annual leave. The monthly retirement benefits that would have been payable, had the member elected to cease employment and receive a service retirement allowance, are paid into the deferred retirement option plan account. Upon termination of employment at the end of the specified period of participation, a participant in the program may receive, at his option, a lump sum payment from the DROP account equal to the payments to the account or systematic disbursements based on the individual’s subaccount in any manner approved by the Board. The monthly benefits that were being paid into the fund during the period of participation will begin to be paid to the retiree based on the option selected at DROP entry. If employment is not terminated at the end of the DROP period, payments into the account cease and employee and employer contributions resume. Monthly retirement benefits payable after termination of participation in the plan and employment include a “base benefit” equal to the participant’s monthly credit to the account plus conversion of sick and annual leave, if any, based on the final average compensation rate used to calculate the monthly credit and an additional benefit if employment continues. The additional benefit is based on service credit for the period after plan participation. If the participant dies while still employed, the credits and benefits, if any, due beneficiaries are payable as if the member retired immediately prior to death.

NOTE: For anyone eligible to enter DROP prior to January 1, 2004, the DROP Account Balance earns interest at a rate of one-half of one percentage point below the percentage rate of return of the System's investment portfolio as certified by the actuary on an annual basis. For all others, DROP accounts are placed in liquid asset money market investments approved by the Board of Trustees.

COST OF LIVING ADJUSTMENTS:

Act 333 of 2007 established an Experience Account to be used to pay cost of living adjustments (COLAs), or permanent benefit increases (PBIs). The Experience Account is credited with 50% of the investment experience gain in excess of $15 million (indexed based on increases in the actuarial value of assets after June 30, 2015) along with that portion of the net investment income, if any, attributable to the prior year balance, subject to maximum accumulation limitation based upon the Plan's funded percentage. The account is also debited with that portion of the system's net investment loss, if any, attributable to the prior year balance. In no event may the amount in the experience account fall below zero. Once the balance of the Experience Account accumulates a sum sufficient to grant retirees a COLA, the Board may recommend the granting of a COLA on benefits up to $60,000 (indexed), not to exceed the lesser of the CPI-U or a percentage determined based on the funded level percentage attained by the system as described in R. S. 11:1145.1(C)(2), provided a COLA had not been granted in the prior year. Benefits are restricted to disability retires and those retirees and beneficiaries who have attained the age of 60 and have been retired for at least one year. Maximum limitations are outlined in ACT 399 of 2014.

ACTUARIAL ASSUMPTIONS

In determining actuarial costs, certain assumptions must be made regarding future experience under the plan. These assumptions include the rate of investment return, mortality of plan members, rates of salary increase, rates of retirement, rates of termination, rates of disability, and various other factors that have an impact on the cost of the plan. To the extent that future experience varies from the assumptions selected for valuation, future costs will be either higher or lower than anticipated. The following chart illustrates the effect of emerging experience on the plan.

Factor	Increase in Factor Results in
Investment Earnings Rate	Decrease in Cost
Annual Rate of Salary Increase	Increase in Cost
Rates of Retirement	Increase in Cost
Rates of Termination	Decrease in Cost
Rates of Disability	Increase in Cost
Rates of Mortality	Decrease in Cost

ACTUARIAL COST METHOD: Individual Entry Age Normal With Allocation of Cost Based on Earnings. Entry and Attained Ages Calculated on an Age Near Birthday Basis.

VALUATION INTEREST RATE: 7.00% (Net of investment and administrative expenses)

ACTUARIAL ASSET VALUES: All assets are valued at market value adjusted to defer four-fifths of all earnings above or below the valuation interest rate in the valuation year, three-fifths of all earnings above or below the valuation interest rate in the prior year, two-fifths of all earnings above or below the valuation interest rate from two years prior, and one-fifth of all earnings above or below the valuation interest rate from three years prior. The resulting smoothed values are subject to a corridor of 85% to 115% of the market value of assets. If the smoothed value falls outside the corridor, the actuarial value is set equal to the average of the corridor limit and the smoothed value.

ACTIVE MEMBER MORTALITY: RP 2000 Combined Healthy Sex Distinct Tables

ANNUITANT AND BENEFICIARY MORTALITY: RP 2000 Combined Healthy Sex Distinct Tables

RETIREE COST OF LIVING INCREASES: The present value of future retirement benefits is based on benefits currently being paid by the system and includes previously granted cost of living increases. The present values do not include provisions for potential future increases not yet authorized by the Board of Trustees.

ANNUAL SALARY INCREASE RATE: The gross rates including inflation and merit increases are as follows:

Years of Service	Salary Growth Rate
1-2	5.5%
3-18	4.2%
19-26	4.0%
27-30	3.5%
Above 30	3.2%

RETIREMENT RATES: The table of these rates through age 75 is included later in the report. These rates apply only to those individuals eligible to retire.

ACCUMULATED LEAVE POLICIES: Retirements are monitored to determine the amount of leave converted to service credit. Leave credit is accrued throughout the duration of the member's career. The average service credit converted is expressed as 3% percent of the accrued benefit.

RETIREMENT LIMITATIONS: Projected retirement benefits are not subject to IRS Section 415 limits.

DROP ENTRY RATES: The table of these rates is included later in the report. These rates apply only to those individuals eligible to enter the DROP plan and are applied only in the year of earliest DROP eligibility.

DROP PARTICIPATION PERIOD: All DROP participants are assumed to participate for 3 years and retire at the end of this participation period.

RETIREMENT RATES FOR ACTIVE FORMER DROP PARTICIPANTS: Active Former DROP Participants retire according to the rates listed for all actives in a table of rates through age 75 included later in the report.

DISABILITY RATES: The table of these rates through age 75 is included later in this report.

WITHDRAWAL RATES: The table of these rates through age 75 is included later in the report.

MARRIAGE STATISTICS: 80% of the members are assumed to be married; husbands are assumed to be three years older than wives.

FAMILY STATISTICS: Assumptions utilized in determining the costs of various survivor benefits are listed below.

Member's Age	% With Children	Number of Children	Average Age
25	62%	1.66	6
30	74%	1.94	8
35	82%	2.06	10
40	81%	1.98	12
45	66%	1.75	13
50	40%	1.48	14
55	19%	1.35	15
60	6%	1.35	15
65	2%	1.35	15

DISABLED LIVES MORTALITY: RP-2000 Disabled Lives Mortality Tables for Males and Females

VESTING ELECTING PERCENTAGE: For members terminating with less than twenty years of service, it is assumed that 80% will withdraw their accumulated employee contributions. For members terminating with twenty or more years of service, it is assumed that only 30% will withdraw their accumulated employee contributions. The remaining are assumed to receive a deferred vested retirement benefit.

ACTUARIAL TABLES AND RATES

Age	Male Mortality Rates	Female Mortality Rates	Retirement Rates for those hired prior to 7/1/2010	Retirement Rates for those hired after 6/30/2010	DROP Rates for those hired prior to 7/1/2010	DROP Rates for those hired after 6/30/2010	Disability Rates	Termination Rates
18	0.000316	0.000188	0.00000	0.00000	0.00000	0.00000	0.00000	0.15000
19	0.000331	0.000190	0.00000	0.00000	0.00000	0.00000	0.00000	0.15000
20	0.000345	0.000191	0.00000	0.00000	0.00000	0.00000	0.00000	0.15000
21	0.000357	0.000192	0.00000	0.00000	0.00000	0.00000	0.00000	0.15000
22	0.000366	0.000194	0.00000	0.00000	0.00000	0.00000	0.00000	0.15000
23	0.000373	0.000197	0.00000	0.00000	0.00000	0.00000	0.00000	0.13000
24	0.000376	0.000201	0.00000	0.00000	0.00000	0.00000	0.00000	0.13000
25	0.000376	0.000207	0.00000	0.00000	0.00000	0.00000	0.00000	0.13000
26	0.000378	0.000214	0.00000	0.00000	0.00000	0.00000	0.00000	0.10000
27	0.000382	0.000223	0.00000	0.00000	0.00000	0.00000	0.00000	0.10000
28	0.000393	0.000235	0.00000	0.00000	0.00000	0.00000	0.00000	0.10000
29	0.000412	0.000248	0.00000	0.00000	0.00000	0.00000	0.00000	0.10000
30	0.000444	0.000264	0.00000	0.00000	0.00000	0.00000	0.00000	0.10000
31	0.000499	0.000307	0.00000	0.00000	0.00000	0.00000	0.00000	0.10000
32	0.000562	0.000350	0.00000	0.00000	0.00000	0.00000	0.00000	0.10000
33	0.000631	0.000394	0.00000	0.00000	0.00000	0.00000	0.00000	0.08000
34	0.000702	0.000435	0.00000	0.00000	0.00000	0.00000	0.00000	0.08000
35	0.000773	0.000475	0.00000	0.00000	0.00000	0.00000	0.00100	0.07000
36	0.000841	0.000514	0.00000	0.00000	0.00000	0.00000	0.00100	0.07000
37	0.000904	0.000554	0.00000	0.00000	0.00000	0.00000	0.00100	0.07000
38	0.000964	0.000598	0.00000	0.00000	0.00000	0.00000	0.00100	0.06500
39	0.001021	0.000648	0.00000	0.00000	0.00000	0.00000	0.00100	0.06500
40	0.001079	0.000706	0.00000	0.00000	0.00000	0.00000	0.00200	0.06500
41	0.001142	0.000774	0.00000	0.00000	0.00000	0.00000	0.00200	0.05500
42	0.001215	0.000852	0.00000	0.00000	0.00000	0.00000	0.00200	0.05500
43	0.001299	0.000937	0.00000	0.00000	0.00000	0.00000	0.00300	0.05500
44	0.001397	0.001029	0.00000	0.00000	0.00000	0.00000	0.00300	0.05500
45	0.001508	0.001124	0.00000	0.00000	0.00000	0.00000	0.00300	0.04500
46	0.001616	0.001223	0.00000	0.00000	0.00000	0.00000	0.00300	0.04500
47	0.001734	0.001326	0.80000	0.00000	0.00000	0.00000	0.00400	0.04500
48	0.001860	0.001434	0.70000	0.00000	0.35000	0.00000	0.00400	0.04500
49	0.001995	0.001550	0.55000	0.00000	0.35000	0.00000	0.00500	0.04000
50	0.002138	0.001676	0.55000	0.00000	0.35000	0.00000	0.00500	0.04000
51	0.002449	0.001852	0.55000	0.00000	0.30000	0.00000	0.00600	0.04000
52	0.002667	0.002018	0.55000	0.00000	0.30000	0.00000	0.00600	0.04000
53	0.002916	0.002207	0.55000	0.00000	0.20000	0.00000	0.00600	0.04000
54	0.003196	0.002424	0.37000	0.00000	0.20000	0.00000	0.00600	0.04000
55	0.003624	0.002717	0.37000	0.00000	0.50000	0.00000	0.00700	0.04000
56	0.004200	0.003090	0.37000	0.00000	0.15000	0.00000	0.00700	0.04000
57	0.004693	0.003478	0.37000	0.00000	0.15000	0.00000	0.00600	0.04000
58	0.005273	0.003923	0.45000	0.00000	0.15000	0.00000	0.00600	0.04000
59	0.005945	0.004441	0.30000	0.00000	0.15000	0.00000	0.00300	0.04000
60	0.006747	0.005055	0.30000	0.48000	0.45000	0.45000	0.00300	0.04000
61	0.007676	0.005814	0.25000	0.25000	0.10000	0.10000	0.00300	0.04000
62	0.008757	0.006657	0.25000	0.25000	0.05000	0.05000	0.00300	0.04000
63	0.010012	0.007648	0.25000	0.25000	0.05000	0.05000	0.00300	0.04000
64	0.011280	0.008619	0.25000	0.25000	0.05000	0.05000	0.00300	0.04000
65	0.012737	0.009706	0.25000	0.25000	0.05000	0.05000	0.00300	0.04000
66	0.014409	0.010954	0.25000	0.25000	0.05000	0.05000	0.00300	0.04000
67	0.016075	0.012163	0.25000	0.25000	0.05000	0.05000	0.00300	0.04000
68	0.017871	0.013445	0.25000	0.25000	0.05000	0.05000	0.00300	0.04000
69	0.019802	0.014860	0.25000	0.25000	0.05000	0.05000	0.00300	0.04000
70	0.022206	0.016742	0.25000	0.25000	0.05000	0.05000	0.00300	0.04000
71	0.024570	0.018579	0.25000	0.25000	0.00000	0.00000	0.00300	0.04000
72	0.027281	0.020665	0.25000	0.25000	0.00000	0.00000	0.00300	0.04000
73	0.030387	0.022970	0.25000	0.25000	0.00000	0.00000	0.00300	0.04000
74	0.033900	0.025458	0.99000	0.99000	0.00000	0.00000	0.00300	0.04000
75	0.037834	0.028106	0.99000	0.99000	0.00000	0.00000	0.00300	0.04000

GLOSSARY

Accrued Benefit – The pension benefit that an individual has earned as of a specific date based on the provisions of the plan and the individual's age, service, and salary as of that date.

Actuarial Accrued Liability – The actuarial present value of benefits payable to members of the fund less the present value of future normal costs attributable to the members.

Actuarial Assumptions - Assumptions as to the occurrence of future events affecting pension costs. These assumptions include rates of mortality, withdrawal, disablement, and retirement. Also included are rates of investment earnings, changes in compensation, as well as statistics related to marriage and family composition.

Actuarial Cost Method – A procedure for determining the portion of the cost of a pension plan to be allocated to each year. Each cost method allocates a certain portion of the actuarial present value of benefits between the actuarial accrued liability and future normal costs. Once this allocation is made, a determination of the normal cost attributable to a specific year can be made along with the payment to amortize any unfunded actuarial accrued liability. To the extent that a particular funding method allocates a greater (lesser) portion of the actual present value of benefits to the actuarial accrued liability it will allocate less (more) to future normal costs.

Actuarial Equivalence – Payments or receipts with equal actuarial value on a given date when valued using the same set of actuarial assumptions.

Actuarial Gain (Loss) – The financial effect on the fund of the difference between the expected and actual experience of the fund. The experience may be related to investment earnings above (or below) those expected or changes in the liability structure due to fewer (or greater) than the expected numbers of retirements, deaths, disabilities, or withdrawals. In addition, other factors such as pay increases above (or below) those forecast can result in actuarial gains or losses. The effect of such gains (or losses) is to decrease (or increase) future costs.

Actuarial Present Value - The value, as of a specified date, of an amount or series of amounts payable or receivable thereafter, with each amount adjusted to reflect the time value of money (through accrual of interest) and the probability of payments. For example: if $600 invested today will be worth $1,000 in 10 years and there is a 50% probability that a person will live 10 years, then the actuarial present value of $1,000 payable to that person if he should survive 10 years is $300.

Actuarial Value of Assets - The value of cash, investments, and other property belonging to the pension plan as used by the actuary for the purpose of the actuarial valuation. This may correspond to the book value, market value, or some modification involving either or both book and market value. Adjustments to market values are often made to reduce the volatility of asset values.

Asset Gain (Loss) - That portion of the actuarial gain attributable to investment performance above (below) the expected rate of return in the actuarial assumptions.

Amortization Payment - That portion of the pension plan contribution designated to pay interest and reduce the outstanding principal balance of unfunded actuarial accrued liability. If the amortization payment is less than the accrued interest on the unfunded actuarial accrued liability the outstanding principal balance will increase.

Contribution Shortfall (Excess) - The difference between contributions recommended in the prior valuation and the actual amount received.

Decrements – Events which result in the termination of membership in the system such as retirement, disability, withdrawal, or death.

Deferred Retirement Option Plan (DROP) Account – The account into which DROP accruals are paid and from which DROP lump sum balances are disbursed.

Employer Normal Cost - That portion of the normal cost not attributable to employee contributions. It includes both direct contributions made by the employer and contributions from other non-employee sources such as revenue sharing and revenues related to taxes.

Funded Ratio – A measure of the ratio of assets to liabilities of the system according to a specific definition of those two values. Typically the assets used in the measure are the actuarial value of assets; the liabilities are defined by reference to some recognized actuarial funding method. Thus the funded ratio of a plan depends not only on the financial strength of the plan but also on the funding method used to determine the liabilities and the asset valuation method used to determine the assets in the ratio.

Initial Benefit Retirement Plan (IBRP) Account – The account into which the initial benefit is deposited. Interest is credited thereto and monthly payments made from this account.

Normal Cost - That portion of the actuarial present value of pension plan benefits and expenses allocated to a valuation year by the actuarial cost method. This is analogous to one year's insurance premium.

Pension Benefit Obligation - The actuarial present value of benefits earned or credited to date based on the members expected final average compensation at retirement. For current retirees or terminated members this is equivalent to the actuarial present value of their accrued benefit.

Projected Benefits – The benefits expected to be paid in the future based on the provisions of the plan and the actuarial assumptions. The projected values are based on anticipated future advancement in age and accrual of service as well as increases in salary paid to the participant.

Side Funds – Legislatively created funds (such as the Employee Experience Account and Amortization Conversion Account) which are excluded from the actuarial value of assets in the determination of the unfunded accrued liability and the actuarially required net direct employer contribution.

Unfunded Actuarial Accrued Liability - The excess of the actuarial accrued liability over the actuarial value of assets.

Vested Benefits - Benefits that the members are entitled to even if they withdraw from service.

NOTES